

1989 No. 1263

PUBLIC HEALTH, ENGLAND AND WALES
PUBLIC HEALTH, SCOTLAND

The Sludge (Use in Agriculture) Regulations 1989

<i>Made</i> - - - -	<i>24th July 1989</i>
<i>Laid before Parliament</i>	<i>28th July 1989</i>
<i>Coming into force</i>	<i>1st September 1989</i>

The Secretary of State for the Environment as respects England, the Secretary of State for Wales as respects Wales and the Secretary of State for Scotland as respects Scotland, in exercise of powers conferred on them by section 2(2) of the European Communities Act 1972(a), and being the Ministers designated(b) for the purposes of that subsection in relation to the regulation and control of the use of sludge in agriculture, hereby make the following Regulations:

Citation, commencement and application

1.—(1) These Regulations may be cited as the Sludge (Use in Agriculture) Regulations 1989, and shall come into force on 1st September 1989.

(2) Nothing in these Regulations shall affect the circumstances in which sludge may be deposited on land in accordance with regulations made under Part I of the Control of Pollution Act 1974(c).

Interpretation

2.—(1) In these Regulations—

“agriculture” means the growing of all types of commercial food crops, including for stock-rearing purposes, and cognate words shall be construed accordingly;

“agricultural unit” means an area of agricultural land used for a single agricultural purpose, not exceeding 5 hectares;

“dedicated site” means an area of agricultural land which on 17th June 1986 was dedicated to the disposal of sludge but on which commercial food crops were being grown exclusively for animal consumption;

“the operative date” means 1st September 1989;

“sludge” means residual sludge from sewage plants treating domestic or urban waste waters and from other sewage plants treating waste waters of a composition similar to domestic and urban waste waters;

“septic tank sludge” means residual sludge from septic tanks and other similar installations for the treatment of sewage;

(a) 1972 c.68; section 2 is subject to Schedule 2 to that Act and is to be read, as regards England and Wales, with sections 37, 40 and 46 of the Criminal Justice Act 1982 (c.48), and S.I. 1984/447 and section 52(4) of the Criminal Justice Act 1988 (c.33) and, as regards Scotland, with sections 289F and 289G of the Criminal Procedure (Scotland) Act 1975 (c.21), as inserted by section 54 of the Criminal Justice Act 1982 (c.48) and S.I. 1984/526 and amended by section 66 of the Criminal Justice (Scotland) Act 1987 (c.41).

(b) S.I. 1988/785.

(c) 1974 c.40.

“sludge producer” means any person who manages a plant at which sludge is produced for disposal;

“the sludge table” means the table set out in Schedule 1;

“the soil table” means the table set out in Schedule 2;

“treated sludge” means sludge or septic tank sludge which has undergone biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use, and “untreated sludge” shall be construed accordingly; and

“use” means spreading on the soil or any other application on or in the soil, and “used” shall be construed accordingly.

(2) In these Regulations, references to a numbered regulation or Schedule are references to the regulation or Schedule bearing that number in these Regulations.

Prohibition on use or supply of sludge

3.—(1) No person shall cause or knowingly permit sludge to be used on agricultural land unless the following requirements are fulfilled; and no person shall supply sludge for use on agricultural land if he knows or has reason to believe that the requirements of paragraph (6) below will not be fulfilled when the sludge is so used, or that the precautions set out in regulation 4 will not be observed after such use.

(2) The sludge shall be tested in accordance with Schedule 1.

(3) The soil on the land shall be tested or assessed in accordance with Schedule 2.

(4) Unless the land is a dedicated site:—

(a) the average annual rate of addition to the land by means of the sludge of any of the elements listed in column (1) of the sludge table shall not exceed the limit (in kilograms per hectare per year) specified in column (2) thereof; and

(b) the concentration in the soil of any of the elements listed in column (1) of the soil table shall not exceed the limit specified in column (2) thereof; and where that limit is not exceeded at the time of the use, it shall not be exceeded by reason of the use.

(5) The pH value of the soil shall not be less than 5.

(6) No fruit or vegetable crops, other than fruit trees, shall be growing or being harvested in the soil at the time of the use.

(7) The sludge shall be used in such a way that account is taken of the nutrient needs of the plants and that the quality of the soil and of the surface and ground water is not impaired.

Precautions to be taken after sludge is used

4.—(1) Where any sludge or septic tank sludge has been used on agricultural land, no person shall cause or knowingly permit the activities specified in column (1) of the Table below to be carried out on that land before the expiry of the period specified in column (2) thereof.

TABLE

(1) <i>Activity</i>	(2) <i>Period</i>
Grazing animals or harvesting forage crops	Three weeks commencing on the date of the use
Harvesting fruit and vegetable crops which are grown in direct contact with the soil and normally eaten raw	Ten months commencing on the date of the use

(2) Where any untreated sludge has been used on land without being injected into the soil, the occupier of the land affected shall, as soon as reasonably practicable thereafter, cause such sludge to be worked into the soil of the land affected.

Information to be supplied to sludge producer

5. Where sludge has been used on any land, other than by or on behalf of the sludge producer, the occupier of that land shall forthwith provide the following information to the sludge producer:-

- (a) the address and area of the agricultural unit concerned;
- (b) the date on which the sludge was used;
- (c) the quantity of sludge so used; and
- (d) where the occupier has used sludge not supplied by the sludge producer, the name and address of the person who supplied that sludge, and the quantity of sludge so used which was supplied by that person.

Register to be kept by sludge producer

6.—(1) Every sludge producer shall prepare and maintain a register containing the following particulars:-

- (a) the total quantity of sludge produced in any year;
- (b) in relation to sludge supplied for the purpose of use in agriculture in any year:-
 - (i) the total quantity of sludge supplied;
 - (ii) the composition and properties of that sludge as determined in accordance with Schedule 1;
 - (iii) the quantities of treated sludge supplied, and the type of treatment;
 - (iv) the names and addresses of the persons to whom the sludge was supplied; and
 - (v) the address and area of each agricultural unit on which sludge has been used, the quantity of sludge used thereon, and the amount of each of the elements listed in the sludge table which have been added thereto;
- (c) a copy of every analysis or assessment made under Schedule 2, or in accordance with advice given for the purposes of regulation 8(4)(a), relating to the soil of an agricultural unit on which sludge has been used; and
- (d) a copy of any advice issued for the purposes of regulation 8(4)(b).

(2) In this regulation "year" means the period from the operative date to December 31st 1989, and thereafter the period of twelve months commencing on January 1st.

Supply of information about sludge

7. (1) A sludge producer shall make the register maintained under regulation 6 available for inspection by the Secretary of State at all reasonable times; and shall furnish the Secretary of State with such information or facilities as he may reasonably require relating to (or to verifying the information contained in) the register or otherwise relating to sludge supplied by the sludge producer, including facilities for analysis of representative samples of sludge or soil.

(2) As soon as reasonably practicable after testing sludge in accordance with Schedule 1, the sludge producer shall provide details of the analysis made under that Schedule to all persons to whom the sludge producer supplies sludge.

Dedicated sites

8. (1) In this regulation "occupier" means the occupier of a dedicated site.

(2) Every sludge producer shall notify the Secretary of State in writing as soon as may be after the operative date of the address and area of every dedicated site to which he supplies sludge.

(3) The occupier shall not grow any commercial food crops thereon other than crops intended for animal consumption.

(4) Where the concentration of any of the substances listed in column (1) of the soil table in the soil of an agricultural unit forming part of a dedicated site exceeds (or if sludge were used would exceed) the concentration in milligrams per kilograms of dry matter specified for that substance in column (2) of that Table, the occupier shall not:-

- (a) use sludge on that unit; or
- (b) sell or offer for sale any crop grown on that unit;

except in accordance with advice in writing from:-

- (i) in England, the Minister of Agriculture Fisheries and Food;
- (ii) in Wales, the Secretary of State for Wales; or
- (iii) in Scotland, the Secretary of State for Scotland.

Penalties

9. Any person who contravenes any of the foregoing regulations shall be guilty of an offence, and liable on summary conviction to a fine not exceeding level 5 on the standard scale.

21st July 1989

Nicholas Ridley
Secretary of State for the Environment

24th July 1989

Peter Walker
Secretary of State for Wales

24th July 1989

James Douglas-Hamilton
Parliamentary Under-Secretary of State, Scottish Office

SCHEDULE 1

Regulation 3

TESTING OF SLUDGE

1. Every sludge producer shall ensure that sludge produced by him and supplied for the purpose of use in agriculture is tested in accordance with this Schedule as soon as reasonably practicable after the operative date, and thereafter at intervals of not more than six months, and in any event where changes occur in the characteristics of the waste water being treated.

2. Representative samples of sludge intended to be used on agricultural land shall be taken after processing, but before delivery to the user.

3. Each sample shall be analysed so as to determine

- (a) the pH value thereof;
- (b) the percentage content of dry matter, organic matter, nitrogen and phosphorus; and
- (c) the concentration in milligrams per kilogram of dry matter of
 - (i) chromium;
 - (ii) the elements listed in column 1 of the sludge table below.

4. The average annual rate of addition referred to in regulation 3(4) shall be ascertained for each of the elements in the sludge table by taking the average amount of that element in the sludge used on that land in the period of ten years ending on the date of such use.

SLUDGE TABLE

(1) <i>Element</i>	(2) <i>Kilograms per hectare per year</i>	(3) <i>Limit of detection (mg/kg of dry matter)</i>
Zinc	15	50
Copper	7.5	25
Nickel	3	10
Cadmium	0.15	1
Lead	15	25
Mercury	0.1	0.1

5. The analysis requisite to ascertain the concentration of metals referred to in paragraph 3(c) above shall be carried out following strong acid digestion; the reference method of analysis shall be that of atomic absorption spectrometry, and the limit of detection for each metal shall not exceed the appropriate limit value specified in column (3) of the sludge table or, in the case of chromium, 25 milligrams per kilogram of dry matter.

SCHEDULE 2

Regulation 3

TESTING OF AGRICULTURAL SOIL

1. The sludge producer shall ensure that agricultural soil is tested or assessed in accordance with this Schedule.

2.—(1) Where—

- (a) sludge has been used on an agricultural unit before the operative date; and
- (b) adequate scientific evidence is available as to the characteristics of the soil thereof, and the sludge used thereon, before that date;

an assessment shall be made as soon as possible after the operative date of the pH value of the soil as at that date, and the probable concentrations in the soil as at that date of—

- (i) chromium;
- (ii) the elements listed in column 1 of the soil table;

and the soil shall be tested not later than 31st December 1991.

(2) Subject to paragraph (1) above, the soil of agricultural land shall be tested—

- (a) where sludge is to be used on that land for the first time after the operative date;
- (b) as soon as may be after the twentieth anniversary of the date when the soil was last tested in accordance with this Schedule; or
- (c) where the sludge producer is so requested in writing by the occupier of the land or by the Secretary of State, and not less than five years have elapsed since the soil was last tested in accordance with this Schedule.

3. For each agricultural unit on which sludge is to be used, a representative sample of soil shall be obtained by mixing together 25 separate core samples, each taken to the depth of the soil or 25 centimetres, whichever is the lesser depth.

4. Each representative sample shall be analysed so as to ascertain—

- (a) the pH value of the sample;
- (b) the concentration in that sample of the following metals—
 - (i) chromium;
 - (ii) the elements set out in the soil table below.

5. For the purposes of regulation 3(4), the specified limit of concentration of elements in any representative sample, expressed in milligrams per kilogram of dry matter, is set out in the soil table below.

SOIL TABLE

(1) <i>Element</i>	(2) <i>Limit</i> <i>According to pH of soil</i>			
	5.0 < 5.5	5.5 < 6.0	6.0-7.0	> 7.0
Zinc	200	250	300	450
Copper	80	100	135	200
Nickel	50	60	75	110
	For pH 5.0 and above			
Lead	300			
Cadmium	3			
Mercury	1			

6. The analysis requisite to ascertain the concentration of metals referred to in paragraph 4(b) above shall be carried out following strong acid digestion; the reference method of analysis shall be that of atomic absorption spectrometry, and the limit of detection for each metal shall not exceed 10% of the appropriate limit value specified in the soil table or, in the case of chromium, 25 milligrams per kilogram of dry matter.

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations implement Council Directive No. 86/278/EEC (OJ No. L181/6) on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture.

Regulation 3 prohibits sludge from sewage plants from being used in agriculture unless specified requirements are fulfilled. They include the testing of the sludge and the soil (Schedules 1 and 2).

Regulation 4 specifies precautions which must be taken after sludge from sewage plants or septic tanks is used on agricultural land.

Regulation 5 requires the occupier of land on which sludge has been used to provide the sludge producer with information about the land and the sludge used.

Regulations 6 and 7 require every sludge producer to maintain a register of the quantities of sludge produced and supplied for use in agriculture, including details of the amount of sludge used on each agricultural unit and the results of analysis of the sludge and the soil. The register is to be available to the Secretary of State for inspection, together with such information or facilities as he may reasonably require, including facilities for analysing the sludge or soil. The sludge producer is required to provide persons he supplies with the results of analysis of the sludge.

Regulation 8 makes special provision for dedicated sites, which on 17th June 1986 (the date of notification of the Directive) were dedicated to the disposal of sludge but on which commercial food crops were being grown exclusively for animal consumption.

Regulation 9 provides an offence of contravening the Regulations, which carries a maximum fine on summary conviction of level 5 on the standard scale.

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