STATUTORY INSTRUMENTS

## 2015 No. 668

# AGRICULTURE, ENGLAND WATER, ENGLAND

The Nitrate Pollution Prevention Regulations 2015

Made	9th March 2015
Laid before Parliament	12th March 2015
Coming into force	1st May 2015

The Secretary of State, in exercise of the powers conferred by section 2(2) of the European Communities Act 1972(1), being designated(2) in relation to the environment, having taken into account available scientific and technical data, mainly with reference to the respective nitrogen contributions originating from agricultural and other sources, and the environmental conditions of the nitrate vulnerable zones in England as required by Article 5(3) of Council Directive 91/676/ EEC (concerning the protection of waters against pollution caused by nitrates from agricultural sources)(3) makes the following Regulations:

## PART 1

### Introductory

#### Citation, commencement and application

**1.**—(1) These Regulations may be cited as the Nitrate Pollution Prevention Regulations 2015.

- (2) These Regulations come into force on 1st May 2015.
- (3) These Regulations apply in relation to England only.

(4) Parts 3 to 8 apply only in relation to holdings that are in nitrate vulnerable zones designated for the purposes of these Regulations (see regulation 3).

#### Interpretation

2.—(1) In these Regulations—

<sup>(1) 1972</sup> c.68. Section 2(2) was amended by section 3(3) of, and Part 1 of the Schedule to, the European Union (Amendment) Act 2008 (c.7) and by section 27(1)(a) of the Legislative and Regulatory Reform Act 2006 (c.51).

<sup>(2)</sup> SI 2008/301.

<sup>(</sup>**3**) OJ No. L 375, 31.12.1991, p.1

"the Agency" means the Environment Agency;

"agricultural" has the meaning given by section 109(3) of the Agriculture Act 1947(4);

"agricultural area" means agricultural land used for agricultural purposes;

"anaerobic digestion" has the meaning given in paragraph 1 of section 1.1 of Chapter 1 of Part 2 of Schedule 1 to the Environmental Permitting (England and Wales) Regulations 2010(5);

"derogated holding" means a holding over which a derogation has effect;

"derogation" and "derogation conditions" each have the meaning given by regulation 36;

"eutrophic", in relation to water, means enriched by nitrogen compounds, causing an accelerated growth of algae and higher forms of plant life that produces an undesirable disturbance to the balance of organisms present in the water and to the quality of the water;

"FACTS adviser" means a person who is a member of the Fertiliser Advisers Certification and Training Scheme(6) and qualified to advise on matters relating to crop nutrient management;

"fertilisation plan" has the meaning given by regulation 10(1)(c) (and see also paragraph 4 of Schedule 3);

"grass" includes-

- (a) permanent grassland or temporary grassland (with "temporary" meaning for a period of less than four years) which exists between the sowing and ploughing of the grass, and
- (b) crops under-sown with grass,

but does not include grassland with at least 50% clover;

"greenhouse" means a structure such as a glasshouse or polytunnel in which crops are grown under cover in an enclosed space, but does not include a structure in which livestock are kept;

"holding" (except in the phrase "relevant holding", as to which see regulation 5(5)) means all the land located within a nitrate vulnerable zone and its associated buildings which are at the disposal of the occupier and which are used for the growing of crops in soil or rearing of livestock for agricultural purposes;

"livestock" means cattle, sheep, goats, deer, horses, poultry or pigs as specified in Schedule 1;

"manufactured nitrogen fertiliser" means a nitrogen fertiliser (other than organic manure) manufactured by an industrial process;

"manufactured phosphate fertiliser" means a phosphate fertiliser (other than organic manure) manufactured by an industrial process;

"new holding" means land and buildings which became a holding after 16th May 2013;

"nitrogen fertiliser" means a substance containing one or more nitrogen compounds used on land to enhance growth of vegetation;

"organic manure" means a nitrogen fertiliser or phosphate fertiliser derived from animal, plant or human sources (and includes livestock manure);

"phosphate fertiliser" means any substance containing one or more phosphorus compounds used on land to enhance growth of vegetation;

"poultry" means chicken, turkey, duck or ostrich as specified in Schedule 1;

"risk map" has the meaning given in regulation 15(1);

"sandy soil" means soil over sandstone, and any other soil in which-

<sup>(</sup>**4**) 1947 c.48

<sup>(5)</sup> SI 2010/675; relevant amendments were made by SI 2012/630.

<sup>(6)</sup> The scheme is administered by Basis Registration Ltd, and a list of qualified persons is available from them on request at http://www.basis-reg.com/contact.aspx

- (a) in the layer up to 40cm deep, there are—
  - (i) more than 50% by weight of particles from 0.06 to 2mm in diameter,
  - (ii) less than 18% by weight of particles less than 0.02mm diameter, and
  - (iii) less than 5% by weight of organic carbon, and
- (b) in the layer from 40 to 80cm deep, there are—
  - (i) more than 70% by weight of particles from 0.06 to 2mm in diameter,
  - (ii) less than 15% by weight of particles less than 0.02mm diameter, and
  - (iii) less than 5% by weight of organic carbon;

"shallow soil" means soil that is less than 40mm deep;

"slurry" means excreta produced by livestock (other than poultry) while in a yard or building (including any bedding, rainwater or washings mixed with it) that has a consistency that allows it to be pumped or discharged by gravity (and in the case of excreta separated into its liquid and solid fractions, the slurry is the liquid fraction);

"spreading", in relation to land, includes applying to the surface of the land, injecting into the land or mixing with the surface layers of the land, but does not include the direct deposit of excreta on to land by animals.

(2) A reference in these Regulations to polluted water is (subject to regulation 4(6)) a reference to water which—

- (a) is freshwater and contains a concentration of nitrates greater than 50 mg/l (or could do so if these Regulations were not to apply there), or
- (b) is eutrophic (or may in the near future become so if these Regulations were not to apply there),

and a reference in these Regulations to pollution, in relation to water, is to be read accordingly.

(3) In these Regulations—

"Council Directive 91/676/EEC" means Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources(7);

"Council Directive 98/83/EC" means Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption(**8**);

"Council Regulation (EC) 1698/2005" means Council Regulation (EC) No. 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development(9);

"Council Regulation (EC) 834/2007" means Council Regulation (EC) No. 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No. 2092/91(**10**);

"Directive 2000/60/EC" means Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy(11);

"Regulation (EU) 1305/2013" means Regulation (EU) No. 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the

<sup>(7)</sup> OJ No. L 375, 31.12.1991, p.1.

<sup>(8)</sup> OJ No. L 330, 5.12.1998, p.32.

OJ No. L 277, 21.10.2005, p.1. This was repealed by Regulation (EU) 1305/2013 subject to transitional provisions (see Article 88).

<sup>(10)</sup> OJ No. L 189, 20.7.2007, p.1.

<sup>(11)</sup> OJ No. L 327, 22.12.2000, p.1.

European Agricultural Fund for Rural Development and repealing Council Regulation (EC) No 1698/2005(12).

## PART 2

## Nitrate vulnerable zones

## Designation

**3.**—(1) An area is designated as a nitrate vulnerable zone for the purposes of these Regulations if, as an area of land that drains into polluted waters and contributes to the pollution of those waters, it is marked as such a zone on a relevant map.

(2) The relevant maps are the maps marked "Nitrate Vulnerable Zones (England 2013) (Revised October 2013)" and stored at the offices of the Secretary of State for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London SW1P 3JR in unalterable electronic form on digital disk, the disk having been signed on behalf of the Secretary of State and dated 1st October 2013.

#### Review

**4.**—(1) The Secretary of State must keep under review the eutrophic state of fresh surface waters, estuarial waters and coastal waters.

(2) The Secretary of State must, before 1st January 2017 and at least every four years subsequently, monitor the nitrate concentration in freshwaters over a period of one year—

- (a) at sampling stations that are representative of surface water, at least monthly and more frequently during flood periods, and
- (b) at sampling stations that are representative of groundwater, at regular intervals and taking into account the provisions of Council Directive 98/83/EC.

(3) But in the case of a sampling station at which the nitrate concentration in all previous samples taken for the purposes of paragraph (2) has been below 25mg/l and no new factor likely to increase the nitrate content has appeared, that paragraph is to be read as if for "2017" there were substituted "2021" and for "every four years" there were substituted "every eight years".

(4) Nitrate concentration must be measured in accordance with Annex V to Directive 2000/60/ EC.

(5) No later than the end of each four-year period provided for under paragraph (2), the Secretary of State must—

- (a) identify water that is affected by pollution, or could be if the controls in these Regulations are not applied in the area concerned, using the criteria in Annex I to Council Directive 91/676/EEC,
- (b) identify land which drains into those waters, or into water which has been similarly identified in Wales or Scotland, and that contributes to the pollution in those waters,
- (c) take into account changes and factors unforeseen at the time of the previous designation, and
- (d) if necessary, revise or add to the designation of nitrate vulnerable zones.

(6) In this Part, references to pollution, in relation to water, are to be construed in accordance with paragraph (5)(a).

<sup>(12)</sup> OJ No. L 347, 20.12.2013, p.487.

#### **Recommendations and proposals**

**5.**—(1) The Agency must, before 10th August 2016 and at least every four years subsequently, make recommendations to the Secretary of State by reference to the matters referred to in regulation 4(5)(a) to (c) as to which areas of land should be, or should continue to be, designated as nitrate vulnerable zones for the purposes of these Regulations.

(2) In deciding whether to revise or add to the designation of nitrate vulnerable zones for the purposes of regulation 4(5)(d), the Secretary of State must have regard to the recommendations made under paragraph (1).

(3) Before revising or adding to the designation of nitrate vulnerable zones, the Secretary of State must—

- (a) publish the proposals to revise or add to the designation, and
- (b) send written notice to any person appearing to the Secretary of State to be the owner or occupier of a relevant holding.
- (4) A notice under paragraph (3)(b) must contain—
  - (a) a reference to the page on the Agency's or Secretary of State's website on which can be found the Secretary of State's proposals under paragraph (3)(a) (or, where the proposals rely on the identification in Wales or Scotland of water as polluted, an indication to that effect), and
  - (b) information about other means of obtaining the information mentioned in subparagraph (a) which do not require access to the internet.

(5) In this regulation and regulation 6, "relevant holding" means land and any associated buildings at the disposal of the occupier—

- (a) which are used for growing crops in soil or rearing livestock for agricultural purposes, and
- (b) which are wholly or partly in an area which the Secretary of State has proposed should be, or should continue to be, designated as a nitrate vulnerable zone for the purposes of these Regulations.

## Appeal

**6.**—(1) An owner or occupier of a relevant holding who is sent a notice under regulation 5(3)(b) may appeal to the First-tier Tribunal(**13**) against the proposals referred to in the notice.

(2) For the purposes of rule 22(2)(g) of the Tribunal Procedure (First-tier Tribunal) (General Regulatory Chamber) Rules 2009(14) (notice of appeal: grounds), the only grounds of an appeal under this regulation are that the relevant holding (or any part of it)—

- (a) does not drain into water which the Secretary of State proposes to identify, or to continue to identify, as polluted or which has been similarly identified in Wales or Scotland, or
- (b) drains into water which the Secretary of State should not identify, or should not continue to identify, as polluted.

(3) If the First-tier Tribunal upholds an appeal under paragraph (2)(a), the Secretary of State, when acting under regulation 4(5), must treat the relevant holding (or the part of it in respect of which the appeal was upheld) as not draining into the water concerned.

<sup>(13)</sup> The First-tier Tribunal was established by section 3(1) of the Tribunals, Courts and Enforcement Act 2007 (c. 15). By virtue of article 3 of the First-tier Tribunal and Upper Tribunal (Chambers) Order 2010 (S.I. 2010/2655), the General Regulatory Chamber of the First-tier Tribunal is allocated all functions related to proceedings in respect of the decisions and actions of regulatory bodies which are not allocated to the Health, Education and Social Care Chamber or to the Tax Chamber by other provisions of that Order.

<sup>(14)</sup> S.I. 2009/1976.

(4) If the First-tier Tribunal upholds an appeal under paragraph (2)(b), the Secretary of State, when acting under regulation 4(5), must—

- (a) treat the water concerned as water which should not be identified, or should not continue to be identified, as polluted, and
- (b) treat any holding (or part of any holding) which drains into that water accordingly (regardless of whether the owner or occupier of the relevant holding appealed under this regulation).

## PART 3

## Limiting the application of organic manure

#### Application of livestock manure: total nitrogen limit for the whole holding

7.—(1) The occupier of a holding must ensure that, in any calendar year, the total amount of nitrogen in livestock manure applied to the holding, whether directly by an animal or by spreading, does not exceed 170kg multiplied by the area of the holding in hectares.

(2) Paragraph (1) does not apply where the occupier has been granted a derogation.

(3) For the purposes of this regulation, the amount of nitrogen is to be calculated in accordance with Schedule 1.

(4) In calculating the area of a holding for the purpose of ascertaining the amount of nitrogen permitted to be spread on the holding, no account is to be taken of—

- (a) any surface waters, hardstanding, buildings, roads or woodland (unless the woodland is used for grazing), or
- (b) any land which is covered by a greenhouse for the whole of the year concerned.

#### Spreading organic manure: nitrogen limits per hectare

**8.**—(1) The occupier of a holding must ensure that in any twelve-month period, the total amount of nitrogen in organic manure spread on any given hectare of land on the holding does not exceed 250kg.

(2) But the occupier may exceed that limit if the following three conditions are met.

(3) Condition 1 is that organic manure is in the form of certified green compost or certified green/ food compost.

(4) Condition 2 is that the total amount of nitrogen in the form of green compost or green/food compost which is spread on any given hectare of land on the holding does not exceed—

- (a) 500kg in any two-year period, whether the compost is spread as mulch or incorporated into the soil, or
- (b) in the case of orchard land, 1,000kg in any four-year period if it is spread as mulch.

(5) Condition 3 is that no other form of organic manure is spread over the land in question during the applicable period provided for under paragraph (4)(a) or (b).

- (6) This regulation does not apply in a case where—
  - (a) the requirements in paragraph (7) are met, and
  - (b) the occupier makes a record demonstrating that they are met.
- (7) The requirements in this paragraph are that throughout the year concerned—
  - (a) at least 80% of the holding's agricultural area is sown with grass,

- (b) the total amount of nitrogen in organic manure applied to the holding, whether directly by an animal or spreading, does not exceed 100kg multiplied by the area of the holding in hectares,
- (c) the total amount of nitrogen from manufactured nitrogen fertiliser applied to the holding does not exceed 90kg multiplied by the area of the holding in hectares, and
- (d) the occupier does not bring organic manure on to the holding.

(8) For the purposes of paragraph (7), the area of the holding does not include any land on which the occupier does not spread fertiliser or work the soil.

(9) For the purposes of this regulation, the total amount of nitrogen in organic manure is to be calculated by reference to the methods described in regulation 14.

(10) The reference in paragraph (1) to the land on the holding does not include any land which is covered by a greenhouse for the whole of the period concerned.

(11) In this regulation—

"certified", in relation to compost, means certified in a statement issued by the manufacturer or supplier as having been produced in accordance with the standards set out in the publication PAS 100:2011 dated January 2011(15);

"green compost" means any nitrogen fertiliser derived exclusively from plant sources in the form of composted landscaping or garden waste;

"green/food compost" means any nitrogen fertiliser derived from plant or animal sources in the form of composted catering waste in any combination with green compost, and which excludes organic manure from livestock;

"orchard land" means land on which fruit of the genus Malus, Pyrus or Prunus is grown.

## PART 4

## Crop requirements

#### **Exclusion for crops in greenhouses**

9. This Part does not apply to the spreading of nitrogen fertiliser on a crop growing in a greenhouse.

### Planning the spreading of nitrogen fertiliser

**10.**—(1) Before spreading nitrogen fertiliser, the occupier of a holding must—

- (a) calculate the amount of nitrogen in the soil that is likely to be available for uptake by the crop concerned during the growing season,
- (b) calculate the optimum amount of nitrogen that should be spread on the crop, taking into account the amount of nitrogen calculated under sub-paragraph (a), and
- (c) produce a plan for the spreading of nitrogen fertiliser for that growing season (a "fertilisation plan").

(2) In the case of permanent grassland, the occupier must comply with the duty under paragraph (1) each calendar year before the first spreading of nitrogen fertiliser.

<sup>(15)</sup> Published by the British Standards Institution, 389 Chiswick High Road, London W5 5AL (www.bsigroup.com), ISBN 978-0-580-65307-0.

(3) In the case of any other crop, the occupier must comply with the duty under paragraph (1) before spreading any nitrogen fertiliser for the first time for the purpose of fertilising a crop planted or intended to be planted.

- (4) The fertilisation plan must be in permanent form.
- (5) The fertilisation plan must record—
  - (a) the reference or name of the relevant field,
  - (b) the area of the field planted or intended to be planted, and
  - (c) the type of crop.

(6) In relation to the area planted or intended to be planted, the fertilisation plan must record—

- (a) the soil type,
- (b) the previous crop (and, if it was grass, whether it was managed by cutting or grazing),
- (c) the amount calculated under paragraph (1)(a) and the method used to calculate the figure,
- (d) the month in which it is expected that the crop will be planted,
- (e) the expected yield (if arable), and
- (f) the optimum amount of nitrogen that should be spread on the crop, taking into account the amount of nitrogen calculated under paragraph (1)(a).

#### Additional information to be recorded

**11.**—(1) Before spreading organic manure, the occupier of a holding must on each occasion calculate the amount of nitrogen that is likely to be available from that manure for crop uptake in the growing season in which it is spread.

(2) Before spreading organic manure, the occupier of a holding must record—

- (a) the area on which the manure is to be spread,
- (b) the quantity to be spread,
- (c) the month in which it is to be spread,
- (d) the type of manure,
- (e) its total nitrogen content, and
- (f) the amount of nitrogen likely to be available from the manure to be spread for crop uptake in the growing season in which it is spread.
- (3) Before spreading manufactured nitrogen fertiliser, the occupier of a holding must record—
  - (a) the amount required, and
  - (b) the month in which it is planned to spread it.

## Total nitrogen spread on a holding

12.—(1) The occupier of a holding must ensure that the total amount of nitrogen spread on a crop or group of crops specified in the table in paragraph (4) does not exceed the figure specified in the second column in any twelve-month period, adjusted as specified in the notes and multiplied by the total area in hectares of the crop or group sown on the holding.

- (2) The "total amount of nitrogen" means the total of-
  - (a) the amount of nitrogen from manufactured nitrogen fertiliser, and
  - (b) the amount of nitrogen available for crop uptake from organic manure in the growing season in which it is spread (calculated in accordance with regulation 14).

(3) This regulation is subject to regulation 13 and applies irrespective of the figure given in the fertilisation plan.

(4) This is the table referred to in paragraph (1)—

Crop	Permitted amount of nitrogen (kg) <sup>(1)</sup>	Standard yield (tonne/ha)
Autumn or early winter sown wheat	220 <sup>(2)(3)(4)</sup>	8
Spring-sown wheat	180 <sup>(3)(4)</sup>	7
Winter barley	180 <sup>(2)(3)</sup>	6.5
Spring barley	150 <sup>(3)</sup>	5.5
Winter oilseed rape	250 <sup>(5)</sup>	3.5
Sugar beet	120	n/a
Potatoes	270	n/a
Forage maize	150	n/a
Field beans	0	n/a
Peas	0	n/a
Grass	300 <sup>(6)</sup>	n/a
Asparagus, carrots, radishes, swedes (individually or in combination)	180	n/a
Celery, courgettes, dwarf beans, lettuce, onions, parsnips, runner beans, sweetcorn, turnips (individually or in combination)	280	n/a
Beetroot, Brussels sprouts, cabbage, calabrese, cauliflower, leeks (individually or in combination)	370	n/a

(1) An additional 80kg per hectare is permitted to all crops grown in fields if the current or previous crop has had straw or paper sludge applied to it.

(2) An additional 20kg per hectare is permitted on fields with shallow soil (other than shallow soils over sandstone).

(3) An additional 20kg per hectare is permitted for every tonne that the expected yield exceeds the standard yield specified in the third column.

- (4) An additional 40kg per hectare is permitted to milling wheat varieties.
- (5) This is inclusive of any nitrogen that is applied as an exemption to the closed period for manufactured nitrogen fertiliser. The permitted amount may be increased by up to 30kg per hectare for every half tonne that expected yield exceeds the standard yield specified in the third column.
- (6) An additional 40kg per hectare is permitted to grass that is cut at least three times a year.

#### Grass grown for dehydration or for chlorophyll production

**13.**—(1) This regulation applies (without prejudice to regulations 7 and 8) in relation to nitrogen which is spread in any twelve-month period, as manufactured nitrogen fertiliser and as nitrogen available for crop uptake from organic manure, on grass grown to achieve a minimum protein content of 16% once harvested and dried.

(2) The occupier of a holding, acting on the written advice of a FACTS adviser, may (subject to paragraph (3)) spread or permit the spreading of nitrogen in an amount so advised even if it exceeds the amount that would otherwise be permitted for grass under regulation 12.

(3) The total amount of nitrogen which the occupier may spread on any given hectare must not exceed—

(a) 700 kg, if the grass is irrigated, or

(b) 500 kg, if the grass is not irrigated.

(4) For the purposes of this regulation, the total amount of nitrogen from organic manure must be calculated by reference to the methods described in regulation 14 for establishing available nitrogen.

(5) After acting in reliance on this regulation, the occupier must provide the FACTS adviser with soil analyses from representative autumn soil samples so that the adviser may take the analyses into account when advising for the purposes of paragraph (2) in relation to subsequent years.

(6) In paragraph (5), "representative autumn soil samples" means soil samples taken during the period beginning with 1st September and ending with the following 31st October which provide a representative indication of mineral nitrogen levels in the soil on which grass of the kind described in paragraph (1) is grown, taking into account the number of fields, soil type and terrain.

#### Calculating the amount of nitrogen available for crop uptake from organic manure

14.—(1) This regulation sets out for the purposes of regulations 8(9), 12(2), 13(4) and 31(6) how to calculate—

- (a) the total amount of nitrogen in organic manure ("nitrogen content"), and
- (b) the amount of nitrogen in that organic manure that is available for crop uptake in the growing season in which it is spread ("available nitrogen").

(2) In relation to livestock manure, the nitrogen content is calculated either by using the standard table in Part 1 of Schedule 2 or by sampling and analysis in accordance with Part 2 of that Schedule.

(3) In relation to livestock manure of a type set out in the first column of the following table, the available nitrogen is the percentage set out in relation to it in the third column (with the second column being included for ease of reference in connection with assessing compliance with requirements under the regulations in force before the commencement of these Regulations(16))—

Type of livestock manure	Amount of nitrogen available for crop uptake in the growing season in which it is spread before 1st January 2014	Amount of nitrogen available for crop uptake in the growing season in which it is spread on and after 1st January 2014
Cattle slurry	35%	40%
Pig slurry	45%	50%
Poultry manure	30%	30%
Other livestock manure	10%	10%

(4) In relation to organic manure (other than livestock manure) which is supplied by a manufacturer or other supplier, the nitrogen content and the available nitrogen are to be calculated—

- (a) by reference to the supplier's technical analyses or, in so far as such information is unavailable, the values given in the Fertiliser Manual (and referred to there as "total nitrogen" and "nitrogen available for the next crop" respectively), or
- (b) by sampling and analysis in accordance with Part 2 of Schedule 2.

(16) See regulation 17 of S.I. 2008/2349 as substituted by S.I. 2013/1001.

(5) In relation to any other organic manure (other than livestock manure), the nitrogen content and the available nitrogen are to be calculated—

- (a) by reference to the values given in the Fertiliser Manual (and referred to there as described in paragraph (4)(a)), or
- (b) by sampling and analysis in accordance with Part 2 of Schedule 2.

(6) In the case of an organic manure for which no value is established for the purposes of a provision referred to in paragraph (1), the occupier may not spread it in reliance on that provision on a crop referred to in regulation 12 or 13.

(7) The reference in paragraph (4)(a) to the supplier's technical analyses is a reference to the technical analyses carried out by the supplier and either provided to the occupier concerned or otherwise published by the supplier.

(8) In this regulation, "the Fertiliser Manual" means the Fertiliser Manual RB209, 8<sup>th</sup> edition(17).

## PART 5

## Controlling the spreading of nitrogen fertiliser

#### **Risk map**

**15.**—(1) An occupier of a holding who spreads organic manure on that holding must produce and maintain a map of the holding (a "risk map") which shows the following—

- (a) each field, with its area in hectares;
- (b) all surface waters;
- (c) any boreholes, springs or wells on the holding or within 50 metres of the boundary of the holding;
- (d) areas with sandy or shallow soils;
- (e) land with an incline greater than 12 degrees;
- (f) land within 10 metres of surface waters;
- (g) land within 50 metres of a borehole, spring or well;
- (h) land drains (other than a sealed impermeable pipe);
- (i) sites suitable for temporary field heaps if this method of storing manure is to be used;
- (j) land that has a low run-off risk.

(2) The information under paragraph (1)(j) need not be included in a risk map produced by an occupier who does not intend to spread manure on land that has a low run-off risk during the storage period as referred to in regulation 25.

(3) Where a change in circumstances affects a matter referred to in paragraph (1), the occupier must update the risk map within three months of the change.

(4) The occupier must keep a copy of the risk map for the holding.

(5) Paragraph (1) does not apply to a holding on which organic manure is spread only in a greenhouse.

<sup>(17)</sup> Published by TSO, June 2010, ISBN 978-0-11-243286-9.

#### **Restrictions on spreading nitrogen fertiliser**

**16.**—(1) Before spreading nitrogen fertiliser, the occupier of a holding must undertake a field inspection to consider the risk of nitrogen getting into surface water.

(2) A person must not spread nitrogen fertiliser on that land if there is a significant risk of nitrogen getting into surface water; and in the assessment of that risk, account must be taken of the following in particular—

- (a) the slope of the land (especially if the slope is greater than 12 degrees);
- (b) any ground cover;
- (c) the proximity to surface water;
- (d) the weather conditions;
- (e) the soil type;
- (f) the presence of land drains.
- (3) A person must not spread nitrogen fertiliser if the soil—
  - (a) is waterlogged, flooded or snow covered, or
  - (b) has been frozen for more than 12 hours in the previous 24 hours.
- (4) A person must not spread manufactured nitrogen fertiliser within 2 metres of surface water.
- (5) A person spreading nitrogen fertiliser must do so in as accurate a manner as possible.
- (6) This regulation does not apply to land which is covered by a greenhouse.

### Spreading organic manure near surface water, boreholes, springs or wells

17.—(1) A person must not spread organic manure within 10 metres of surface water, except in so far as doing so is permitted by paragraph (2) or (4).

(2) Livestock manure (other than slurry or poultry manure) may be spread if-

- (a) it is spread on land managed for breeding wader birds or as a species-rich semi-natural grassland and the land comes within paragraph (3),
- (b) it is spread in the period that begins with 1st June and ends with the following 31st October,
- (c) it is not spread directly on to surface water, and
- (d) the total annual amount does not exceed 12.5 tonnes per hectare.
- (3) Land comes within this paragraph if it is—
  - (a) notified as a site of special scientific interest under the Wildlife and Countryside Act 1981(18), or
  - (b) subject to an agri-environmental commitment entered into under Council Regulation (EC) 1698/2005(19) or Regulation (EU) 1305/2013.

(4) Organic manure in the form of slurry, sewage sludge or anaerobic digestate (or any combination of those) may be spread, except within 6 metres of surface water, if the spreading equipment used is—

- (a) a trailing hose band spreader or a trailing shoe band spreader,
- (b) an injector which injects the organic manure no deeper than 10cm below the surface of the soil, or
- (c) a dribble bar applicator.

<sup>(18) 1981</sup> c.69. See section 28 as substituted by Schedule 9 to the Countryside and Rights of Way Act 2000 (c. 37).

<sup>(19)</sup> Council Regulation (EC) 1698/2005 was repealed by Article 88 of Regulation (EU) 1305/2013 but commitments entered into under it remain in force by virtue of the transitional provision in that Article.

(5) In paragraph (4)—

"anaerobic digestate" means the product of anaerobic digestion other than from sewage or material in a landfill;

"sewage sludge" means sludge within the meaning of the Sludge (Use in Agriculture) Regulations 1989(**20**) the use of which complies with regulation 3 of those Regulations.

- (6) A person must not spread organic manure within 50 metres of a borehole, spring or well.
- (7) This regulation does not apply to land which is covered by a greenhouse.

### **Restrictions on spreading slurry**

18.—(1) Where a person uses equipment to spread slurry by broadcasting, the equipment must—

- (a) have a trajectory of less than 4 metres from the ground, or
- (b) have a trajectory of 4 metres or more from the ground and be able to achieve a maximum slurry application rate of 1 mm per hour when it is operating continuously.
- (2) This Regulation does not apply to a new holding until 1st January 2016.

### Incorporating organic manure into the ground

**19.**—(1) A person who applies organic manure on to the surface of bare soil or stubble (other than soil that has been sown) must ensure that it is incorporated into the soil in accordance with this regulation.

(2) Poultry manure must be incorporated as soon as practicable (and within 24 hours at the latest).

(3) Slurry or liquid from the treatment of sewage sludge by anaerobic digestion must be incorporated as soon as practicable (and within 24 hours at the latest), unless it was applied using—

- (a) equipment of a kind described in regulation 17(4)(a) or (c), or
- (b) an injector which injects the organic manure into the ground.

(4) Any other organic manure (other than organic manure spread as a mulch on sandy soil) must be incorporated as soon as practicable (and within 24 hours at the latest), if the land—

- (a) is within 50 metres of surface water, and
- (b) slopes in such a way that there may be a run-off to that water.
- (5) This regulation does not apply to nitrogen fertiliser spread in a greenhouse.

#### **Closed periods for organic manure**

**20.**—(1) A person must not spread organic manure with high readily available nitrogen on land during the closed period.

- (2) The closed period is—
  - (a) in the case of grassland with soil of a type specified in the first column of the table in paragraph (3), the period which begins with the first date specified in relation to soil of that type in the second column of the table and ends with the second date so specified;
  - (b) in the case of tillage land with soil of a type specified in the first column of the table, the period which begins with the first date specified in relation to soil of that type in the third column of the table and ends with the second date so specified (but see paragraph (4)).
- (3) This is the table referred to in paragraph (2)—

<sup>(20)</sup> S.I. 1989/1263; see regulation 2.

Soil type	Grassland	Tillage land
Sandy or shallow soil	1st September to following 31st December	1st August to following 31st December
All other soils	15th October to following 31st January	1st October to following 31st January

(4) A person may, in spite of paragraph (2)(b), spread organic manure with high readily available nitrogen on tillage land with sandy or shallow soil during the period that begins with 1st August and ends with the following 15th September if the next crop sown on the land is sown on or before 15th September.

- (5) Between the end of the closed period and the end of the following February—
  - (a) the maximum amount of slurry that may be spread at any one time is 30 cubic metres per hectare;
  - (b) the maximum amount of poultry manure that may be spread at any one time is 8 tonnes per hectare;
  - (c) there must be at least three weeks between any spreading of either of the descriptions specified in paragraph (a) or (b).
- (6) This regulation does not apply to a new holding until 31st July 2015.
- (7) This regulation does not apply to the spreading of nitrogen fertiliser in a greenhouse.

(8) In this regulation and regulation 21, "organic manure with high readily available nitrogen" means organic manure in which more than 30% of the total nitrogen content is available to the crop at the time of spreading.

### **Exemption for organic holdings**

**21.**—(1) The occupier of a holding who has submitted his or her undertaking to the control system referred to in Article 27 of Council Regulation (EC) 834/2007 may at any time, in spite of regulation 20, spread organic manure with high readily available nitrogen—

- (a) on winter oilseed rape, asparagus, brassica, grass, over-wintered salad onions, parsley or bulb onions;
- (b) on any other crop in accordance with written advice from a FACTS adviser.

(2) Paragraph (1) applies only if each hectare on which the organic manure is spread does not receive more than 150kg total nitrogen between the start of the applicable closed period under regulation 20 and the end of the following February.

(3) In the case of winter oilseed rape, nitrogen must not be spread after 31st October.

(4) In the case of brassica, an additional 50kg of nitrogen per hectare may be spread every four weeks during the applicable closed period under regulation 20 up to the date of harvest (but not so as to exceed the limit imposed by paragraph (2)).

- (5) In the case of grass—
  - (a) nitrogen must not be spread after 31st October, and
  - (b) a maximum of 40kg of nitrogen per hectare may be spread at any one time.
- (6) This regulation does not apply to a new holding until 31st July 2015.
- (7) This regulation does not apply to the spreading of nitrogen fertiliser in a greenhouse.

#### Closed period for manufactured nitrogen fertiliser

**22.**—(1) A person must not spread manufactured nitrogen fertiliser on land during the closed period.

- (2) The closed period is—
  - (a) in the case of grassland, the period that begins with 15th September and ends with the following 15th January;
  - (b) in the case of tillage land, the period that begins with 1st September and ends with the following 15th January.

(3) But a person may spread fertiliser during the closed period on a crop specified in the first column of the table in paragraph (5) if the rate of nitrogen specified in the second column is not exceeded.

(4) A person may spread fertiliser during the closed period on a crop not specified in the table in paragraph (5) if the spreading is in accordance with written advice from a FACTS adviser.

Сгор	Maximum nitrogen rate (kg/hectare)	
Winter oilseed rape	30	
Asparagus	50	
Brassica	100	
Grass	80	
Over-wintered salad onions	40	
Parsley	40	
Bulb onions	40	

(5) This is the table referred to in paragraphs (3) and (4)—

(6) In the case of winter oilseed rape, nitrogen must not be spread after 31st October.

(7) In the case of brassica, an additional 50kg of nitrogen per hectare may be spread every four weeks during the closed period up to the date of harvest.

- (8) In the case of grass—
  - (a) nitrogen must not be spread after 31stOctober, and
  - (b) a maximum of 40kg of nitrogen per hectare may be spread at any one time.

(9) This regulation does not apply to the spreading of nitrogen fertiliser in a greenhouse.

## PART 6

## Storage of organic manure

### Storage of organic manure

**23.**—(1) The occupier of a holding must not store organic manure (other than slurry), or bedding contaminated with organic manure, except—

- (a) in a vessel,
- (b) in a covered building (including a greenhouse),
- (c) on an impermeable surface, or

(d) in the case of solid manure which can be stacked in a free-standing heap and which does not drain liquid from the material, on a temporary field site.

(2) A heap of solid manure as described in paragraph (1)(d) forming a temporary field site must occupy as small a surface area as is practically required to support the mass of the heap and prevent it from collapse.

- (3) A temporary field site must not be—
  - (a) in a field liable to flooding or becoming waterlogged,
  - (b) within 50 metres of a spring, well or borehole or within 10 metres of surface water or a land drain (other than a sealed impermeable pipe),
  - (c) located in any single position for more than 12 consecutive months,
  - (d) located in the same place as an earlier one constructed within the last two years, or
  - (e) on land having a slope of 12 degrees or more which is within 30 metres of surface water.

(4) Solid poultry manure that does not have bedding mixed into it and is stored on a temporary field site must be covered with an impermeable material.

#### Separation of slurry

**24.**—(1) Separation of slurry into its solid and liquid fractions must be carried out mechanically or on an impermeable surface where the liquid fraction drains into a suitable receptacle.

(2) This regulation does not apply to a new holding until the latest date on which a closed period under regulation 20 begins in relation to that holding (regardless of whether an exception under regulation 20(4) or 21 applies).

#### Storage capacity

**25.**—(1) An occupier of a holding who keeps any animals specified in column 1 of Schedule 1 must provide sufficient storage—

- (a) for all slurry produced on the holding during the storage period, and
- (b) for all poultry manure produced in a yard or building on the holding during the storage period.

(2) The volume of the manure produced by the animals on the holding must be calculated using the figures specified for the daily manure produced by each animal in column 2 of Schedule 1.

(3) A slurry store must have the capacity to store, in addition to the manure, any rainfall, washings or other liquid that enters the vessel (either directly or indirectly) during the storage period.

(4) Storage facilities are not necessary for slurry or poultry manure that the occupier intends will be—

(a) sent off the holding, or

(b) spread in accordance with these Regulations on land that has a low run-off risk.

(5) But in a case within paragraph (4)(b), storage facilities for an additional one week's manure must be provided as a contingency measure in the event of spreading not being possible on some dates.

(6) This regulation does not apply to a new holding until the latest date on which a closed period under regulation 20 begins in relation to that holding (regardless of whether an exception under regulation 20(4) or 21 applies).

(7) In this regulation, "storage period" means—

- (a) in the case of pigs and poultry, the period that begins with 1st October and ends with the following 1st April;
- (b) in any other case, the period that begins with 1st October and ends with the following 1st March.
- (8) For the purposes of this regulation, land has a "low run-off risk" if it-
  - (a) has an average slope of less than 3 degrees,
  - (b) does not have land drains (other than a sealed impermeable pipe), and
  - (c) is at least 50 metres from a watercourse or conduit leading to a watercourse.

## PART 7

### Calculations and records

#### Annual records relating to storage

**26.**—(1) Before 30th April each year, the occupier of a holding with livestock must record for the previous storage period the number of animals in a building or hardstanding on the holding during that period and the category for each animal by reference to Schedule 1.

(2) The occupier must also record the temporary field sites used for free-standing heaps as referred to in regulation 23 and the dates of use.

(3) In this regulation, "storage period" has the meaning given in regulation 25(7).

## Record of nitrogen produced by animals on the holding

**27.**—(1) Before 30th April each year, the occupier of a holding with livestock must record—

- (a) the number of animals on the holding during the previous calendar year and the category for each animal by reference to Schedule 1, and
- (b) the number of days that each animal spent on the holding.

(2) The occupier must then calculate the amount of nitrogen in the manure produced by the animals on the holding during that year by reference to Schedule 1.

(3) In the case of permanently housed pigs or poultry, the occupier may (as an alternative to the method referred to in paragraph (2)) use—

- (a) software approved by the Secretary of State, or
- (b) in the case of a system of keeping livestock that only produces solid manure, sampling and analysis in accordance with Part 2 of Schedule 2.
- (4) The occupier must make a record of the calculations and how the final figures were arrived at.

(5) Where the occupier uses software approved by the Secretary of State, the occupier must keep a printout of the result.

#### Livestock manure brought on to or sent off the holding

**28.**—(1) The occupier of a holding who brings livestock manure on to a holding must, within one week of doing so, record—

- (a) the type and amount of livestock manure,
- (b) the date on which it was brought on to the holding,
- (c) the nitrogen content (if known), and

(d) the name and address of the supplier.

(2) An occupier who sends livestock manure off a holding must, within one week of doing so, record—

- (a) the type and amount of livestock manure,
- (b) the date on which it was sent off the holding,
- (c) the nitrogen content,
- (d) the name and address of the recipient, and
- (e) details of a contingency plan to be used in the event that an agreement for a person to accept the livestock manure fails.

(3) If the nitrogen content of livestock manure brought on to a holding is not known, the occupier must ascertain it, as soon as reasonably practicable after arrival, and record it within one week of ascertaining it.

- (4) For the purposes of this regulation, nitrogen content must be ascertained—
  - (a) by using the standard figures in Part 1 of Schedule 2, or
  - (b) by sampling and analysis as set out in Part 2 of that Schedule.

(5) This regulation does not apply to a holding on which organic manure is spread only in a greenhouse.

#### Sampling and analysis

**29.** A person using sampling and analysis to determine nitrogen content in organic manure must keep the original report from the laboratory.

#### **Records of crops sown**

**30.**—(1) The occupier of a holding must, within one week of sowing a crop on which the occupier spreads or intends to spread nitrogen fertiliser, record the crop sown and the date of sowing.

(2) This regulation does not apply to a crop growing in a greenhouse.

## Records of spreading nitrogen fertiliser

**31.**—(1) The occupier of a holding who spreads organic manure must, within one week of doing so, record—

- (a) the area spread,
- (b) the quantity of organic manure spread,
- (c) the date,
- (d) the method,
- (e) the type of organic manure,
- (f) the total nitrogen content, and
- (g) the amount of nitrogen that was available to the crop.

(2) The occupier of a holding must, within one week of spreading manufactured nitrogen fertiliser, record—

- (a) the date of spreading, and
- (b) the amount of nitrogen spread.
- (3) This regulation does not apply to nitrogen fertiliser spread in a greenhouse.

- (4) This regulation does not apply in a case where, in any calendar year—
  - (a) the requirements under paragraph (5) are met, and
  - (b) the occupier makes a record demonstrating that they are met.
- (5) The requirements under this paragraph are that throughout the year concerned—
  - (a) at least 80% of the holding's agricultural area is sown with grass,
  - (b) the total amount of nitrogen in organic manure applied to the holding, whether directly by an animal or spreading, does not exceed 100kg multiplied by the area of the holding in hectares,
  - (c) the total amount of nitrogen from manufactured nitrogen fertiliser applied to the holding does not exceed 90kg multiplied by the area of the holding in hectares, and
  - (d) the occupier does not bring organic manure on to the holding.
- (6) For the purposes of paragraph (5)—
  - (a) the area of the holding excludes any land on which the occupier does not spread fertiliser or work the soil, and
  - (b) the total amount of nitrogen in organic manure is to be calculated by reference to the methods described in regulation 14.

### Subsequent records

**32.**—(1) The occupier of a holding who has used nitrogen fertiliser must record the yield achieved by an arable crop within one week of ascertaining it.

(2) Before 30th April each year, the occupier of a holding must record how any grassland was managed in the previous calendar year.

(3) This regulation does not apply to crops in a greenhouse.

### **FACTS** advice

**33.** Where the occupier of a holding has for any purpose under these Regulations relied on advice from a FACTS adviser, the occupier must keep a copy of the advice.

#### Keeping records up to date

**34.**—(1) In a case where the occupier of a holding was required by regulation 35(1) of the old regulations to record by 30th April 2009 (or, in the case of a new holding, 1st January 2014(21)) the total size of the holding, the occupier must, if the size of the holding changes, update that record within one month.

(2) Paragraph (1) applies only in so far there is a change in the area of the land on the holding that is not covered by a greenhouse.

(3) In a case where the occupier of a holding was required by regulation 36(1)(b) of the old regulations to record by 30th April 2009 (or, in the case of a new holding, 1st January 2014(22)) the amount of storage capacity of the holding, the occupier must, if the amount of storage capacity changes, record that change within one week.

(4) If the occupier of a holding introduces animals on to the holding for the first time, the occupier must, within one month of the introduction of the animals, calculate and record—

<sup>(21)</sup> See paragraph 12 of Schedule A1 to S.I. 2008/2349.

<sup>(22)</sup> See footnote (a).

- (a) the amount of manure that will be produced by the number of animals expected to be kept in a building or on hardstanding during the storage period (as defined by regulation 25), using the figures given in Schedule 1,
- (b) the amount of storage capacity (in slurry vessels and hardstanding) required to enable compliance with regulation 25, taking into account—
  - (i) the amount of manure intended to be exported from the holding,
  - (ii) the amount of manure intended to be spread on land that has a low run-off risk, and
  - (iii) in the case of a slurry vessel, the amount of liquids other than slurry likely to enter the vessel, and
- (c) the current storage capacity of the holding.

(5) The references in paragraphs (1) and (3) to the old regulations are references to the Nitrate Pollution Prevention Regulations 2008(23).

#### **Duration of records**

**35.**—(1) A person required to make a record under these Regulations must keep the record until such time as a period of 5 years has expired since the record ceased to be current (regardless of whether the land in question has in the meantime ceased to be designated as a nitrate vulnerable zone).

(2) The reference in paragraph (1) to a record required to be made under these Regulations includes a reference to a record required to be made under the Nitrate Pollution Prevention Regulations 2008 and in relation to which regulation 45 of those Regulations had effect immediately before the commencement of these Regulations.

## PART 8

### Derogation

#### Application

**36.**—(1) The occupier of a holding may apply to the Agency for a derogation in a case where 80% or more of the agricultural area of the holding is sown with grass.

(2) "Derogation" means a derogation granted under this Part from the limit on the total amount of nitrogen in livestock manure that can be applied to land each year in accordance with paragraph 2(b) of Annex III to Council Directive 91/676/EEC.

(3) The reference in paragraph (1) to the agricultural area does not include a reference to any land which is covered by a greenhouse.

(4) An application under this Regulation must be accompanied by a written declaration that the occupier will meet the conditions set out in Schedule 3 ("the derogation conditions") in relation to the holding.

(5) The application must be submitted between 1st October and 31stDecember in the calendar year preceding that to which the application relates.

(6) The application must be made in the form and manner published by the Secretary of State.

<sup>(23)</sup> S.I. 2008/2349.

#### **Determination of application**

**37.**—(1) The Agency must determine an application under regulation 36 as soon as practicable.

- (2) Having determined the application, the Agency must-
  - (a) notify the applicant in writing of its determination, and
  - (b) if it has refused the application, give the reasons for its refusal.

(3) If the Agency grants the application, it must designate the holding in question as a derogated holding for the calendar year to which the application relates; and, accordingly, the occupier must meet the derogation conditions in relation to the holding.

(4) The occupier must keep a record of the application and determination.

(5) The Agency must refuse the application if it considers that granting the derogation would have an adverse effect on the integrity of a European site or European offshore marine site, where that site has been subject to an appropriate assessment under regulation 61 of the Conservation of Habitats and Species Regulations 2010(24).

(6) In paragraph (5)—

"European site" has the meaning given by regulation 8 of those Regulations, and

"European offshore marine site" has the meaning given by regulation 15 of the Offshore Marine Conservation (Natural Habitats, &c) Regulations 2007(**25**).

(7) The Agency must (subject to paragraph (8)) refuse the application if the occupier has been found in breach of the derogation conditions during the calendar year preceding that to which the application relates.

(8) If the occupier is found in breach of the derogation conditions after the date of the application but before it has been determined (and before the calendar year to which the application relates), the Agency may, taking into account the seriousness of the breach, grant or refuse the application.

(9) If the occupier is found in breach of the derogation conditions after the application has been granted (but before the calendar year to which the application relates), the Agency may, taking into account the seriousness of the breach, revoke the derogation by sending written notice to the applicant before the calendar year for which the derogation was granted.

(10) Where the Agency grants an application in a case within paragraph (8) or decides not to revoke a derogation in a case within paragraph (9), it must refuse the next application made under regulation 36 by or on behalf of the occupier.

(11) For the purposes of this regulation, a person is to be regarded as having been found in breach of the derogation conditions if—

- (a) the person has been convicted of an offence under regulation 41 which arises from a breach of those conditions and either no further appeal may be made against the conviction or, where there was an appeal, it was decided against the person,
- (b) the person has accepted a simple caution for such an offence,
- (c) a penalty or notice has been imposed under regulation 42 in relation to such an offence and either no further appeal may be made against the penalty or notice or, where there was an appeal, it was decided against the person, or
- (d) the person has given the Agency an enforcement undertaking under that regulation in relation to such an offence.

<sup>(24)</sup> S.I. 2010/490. Relevant amendments were made by S.I. 2012/1927.

<sup>(25)</sup> S.I. 2007/1842. A relevant amendment was made by S.I. 2012/1928.

## Appeal

**38.**—(1) Where the Agency refuses an application under regulation 36, the occupier may by notice appeal against the refusal to an independent panel appointed by the Secretary of State for the purpose of these Regulations.

(2) An appeal under this regulation must be submitted before the end of 30 days beginning with the day after the date of the refusal.

(3) An appeal under this regulation must be made in the form and manner published by the Secretary of State.

(4) The panel appointed under this regulation must consist of an odd number of persons (and must consist of at least 3 persons).

(5) A decision of the panel is to be made by simple majority.

- (6) The panel must base its decision on-
  - (a) documents submitted to it by the appellant,
  - (b) documents submitted to it by the Agency, and
  - (c) such additional information from the appellant or the Agency as it considers necessary.

(7) For the purposes of paragraph (6)(c), the panel may—

- (a) request the appellant or the Agency to provide the additional information, or
- (b) in exceptional circumstances, convene an oral hearing at which the appellant and the Agency may appear.

(8) If the panel allows an appeal under this regulation, the Agency must designate the holding concerned as a derogated holding for the calendar year for which the application was made.

(9) Having determined an appeal under this regulation, the panel must—

- (a) as soon as reasonably practicable, notify in writing the Agency, the appellant and the Secretary of State of its determination, and
- (b) where it refuses the appeal, give the reasons for its refusal.

(10) Each party to an appeal under this regulation must bear its own costs.

## PART 9

### Review

#### Review

**39.**—(1) At least every four years, the Secretary of State must—

- (a) review the effectiveness of the restrictions in nitrate vulnerable zones imposed by these Regulations as a means of reducing or preventing water pollution caused by nitrates from agricultural sources, and
- (b) if necessary, revise the restrictions.

(2) In order to comply with the duty under paragraph (1), the Secretary of State must establish a monitoring programme to assess the effectiveness of the restrictions.

(3) When carrying out the review under paragraph (1)(a), the Secretary of State must take into account—

(a) available scientific and technical data, particularly with reference to respective nitrogen contributions originating from agricultural or other sources, and

(b) regional environmental conditions.

(4) When carrying out the review, the Secretary of State must ensure that the public are given early and effective opportunities to participate; and the Secretary of State must accordingly make adequate arrangements to enable the public to prepare and participate effectively.

- (5) The Secretary of State must ensure—
  - (a) that the public are consulted about the proposals in light of the review and that relevant information about such proposals is made available to the public (including information about the right to participate in decision-making and about the body to which comments or questions may be submitted), and
  - (b) that the public are given an opportunity to express comments and opinions when all options are under consideration (and, accordingly, before decisions on the plans and programmes are made).

(6) The Secretary of State must identify those with an interest in being consulted, including nongovernmental organisations promoting environmental protection.

(7) Having carried out consultation under this regulation, the Secretary of State must inform the public about—

- (a) the decisions taken and the reasons for them, and
- (b) the considerations upon which those decisions are based (including the participation by the public).

#### **Regulatory review**

**40.**—(1) The Secretary of State must from time to time (and in so far as the Secretary of State has not done so under regulation 39) carry out a review of these Regulations.

(2) Having carried out a review under paragraph (1), the Secretary of State must—

- (a) set out the conclusions in a report, and
- (b) publish the report.

(3) In carrying out the review, the Secretary of State must have regard to how Council Directive 91/676/EEC is implemented in other member States.

(4) A report under paragraph (2)(a) must in particular—

- (a) set out the objectives intended to be achieved by these Regulations, and
- (b) include an assessment of the extent to which those objectives are being achieved, and
- (c) include an assessment of whether those objectives remain appropriate and, in so far as they do, the extent to which they could be achieved in a less burdensome way.
- (5) The first report under this regulation must be published before 6th August 2017.
- (6) Subsequent reports under this regulation are to be published at intervals not exceeding 5 years.

## PART 10

## Enforcement

#### Offence and penalty

**41.**—(1) A person who breaches a provision of these Regulations commits an offence.

(2) A person guilty of an offence under this regulation is liable—

- (a) on summary conviction, to a fine, or
- (b) on conviction on indictment, to a fine.

(3) Where a body corporate is guilty of an offence under this regulation, and the offence is proved to have been committed with the consent or connivance of, or to have been attributable to any neglect on the part of—

- (a) a director, manager, secretary or other similar officer of a body corporate, or
- (b) a person who was purporting to act in such a capacity,

that person, as well as the body corporate, is guilty of the offence and liable to be proceeded against and punished accordingly.

(4) In paragraph (3), "director", in relation to a body corporate whose affairs are managed by its members, means a member of the body.

#### **Civil sanctions**

**42.**—(1) The Agency may impose a fixed monetary penalty, variable monetary penalty, restoration notice, compliance notice or stop notice, or may accept an enforcement undertaking, in relation to an offence under regulation 41, as if it were an offence in relation to which the sanction in question was specified in Schedule 5 to the Environmental Civil Sanctions (England) Order 2010(26).

(2) An expression used in paragraph (1) and in that Order has the same meaning in that paragraph as it has in that Order.

(3) The provisions of that Order relating to the sanctions referred to in paragraph (1) apply as if they were provisions of these Regulations.

#### Enforcement

43. The Agency has the function of enforcing these Regulations.

## PART 11

## Revocations

#### **Revocation of consolidated provisions**

44. The following are revoked—

- (a) the Nitrate Pollution Prevention Regulations 2008(27);
- (b) the Nitrate Pollution Prevention (Amendment) Regulations 2009(28);
- (c) regulation 10 of the Environmental Civil Sanctions (Miscellaneous Amendments) (England) Regulations 2010(29);
- (d) the Nitrate Pollution Prevention (Amendment) Regulations 2012(30);

<sup>(26)</sup> SI 2010/1157.

<sup>(27)</sup> SI 2008/2349.

<sup>(28)</sup> SI 2009/3160.

<sup>(</sup>**29**) SI 2010/1159.

<sup>(</sup>**30**) SI 2012/1849.

- (e) regulations 2 to 25 of the Nitrate Pollution Prevention (Amendment) and Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) (Amendment) Regulations 2013(31);
- (f) the Nitrate Pollution Prevention (Designation and Miscellaneous Amendments) Regulations 2013(**32**).

Dan Rogerson Parliamentary Under Secretary of State Department for Environment, Food and Rural Affairs

9th March 2015

## SCHEDULE 1

Regulations 2(1), 7(3),25(1) and (2), 26(1),27(1) and (2) and 34(4)

## Manure, nitrogen and phosphate produced by livestock

## **Grazing livestock**

Category	Daily manure produced by each animal (litres)		•
Cattle			
Calf (all categories except veal) younger than 2 months	7	23	12.7
Dairy cow—			
From 2 months to less than 12 months	20	95	34
From 12 months up to first calf	40	167	69
After first calf and—			
annual milk yield more than 9000 litres	64	315	142
annual milk yield between 6000 and 9000 litres	53	276	121
annual milk yield less than 6000 litres	42	211	93
Beef cow or steer—			
From 2 months to less than 12 months	20	91	33
From 12 months to less than 24 months	26	137	43
From 24 months—			
females or steers for slaughter	32	137	60
females for breeding			
weighing 500kg or less	32	167	65
weighing more than 500kg	45	227	86
Bulls—			
Non-breeding, 2 months and over	26	148	24
Breeding—			
from 2 months to less than 24 months	26	137	43
from 24 months	26	132	60
Sheep			

(1) In the case of a ewe, the figures include one or more suckled lambs until the lambs are aged 6 months.

Category	Daily manure produced by each animal (litres)	produced by	phosphate
From 6 months up to 9 months	1.8	5.5	0.76
From 9 months to first lambing, first tupping or slaughter	1.8	3.9	2.1
After lambing or tupping <sup>(1)</sup> —			
weighing less than 60kg	3.3	21	8.8
weighing 60kg or more	5	33	10
Goat, deer and horse			
Goat	3.5	41	18.8
Deer—			
breeding	5	42	17.6
other	3.5	33	11.7
Horse	24	58	56

(1) In the case of a ewe, the figures include one or more suckled lambs until the lambs are aged 6 months.

## Non-grazing livestock

Category	Daily manure produced by each animal (litres or, in the case of poultry, kilograms)	, 0	phosphate
Cattle			
Veal calf	7	23	12.7
Poultry <sup>(1)</sup>			
Chicken used for producing eggs for human consumption—			
less than 17 weeks	0.04	0.64	0.47
from 17 weeks (caged)	0.12	1.13	1.0
from 17 weeks (not caged)	0.12	1.5	1.1
Chickens raised for meat	0.06	1.06	0.72
Chickens raised for breeding—			
less than 25 weeks	0.04	0.86	0.78
from 25 weeks	0.12	2.02	1.5

(1) All figures for poultry include litter

Category	Daily manure produced by each animal (litres or, in the case of poultry, kilograms)	Daily nitrogen produced by each animal (grams)	Daily phosphate produced by each animal (grams)
Turkey—			
male	0.16	3.74	3.1
female	0.12	2.83	2.3
Duck	0.1	2.48	2.4
Ostrich	1.6	3.83	18.5
Pigs			
Weighing from 7kg to less than 13kg	1.3	4.1	1.3
Weighing from 13kg to less than 31kg	2	14.2	6
Weighing from 31kg to less than 66kg—			
dry fed	3.7	24	12.1
liquid fed	7.1	24	12.1
Weighing from 66kg and—			
intended for slaughter—			
dry fed	5.1	33	17.9
liquid fed	10	33	17.9
sow intended for breeding that has not yet had first litter	5.6	38	20
sow (including litter up to 7kg) fed on a diet supplemented with synthetic amino acids	10.9	44	37
sow (including litter up to 7kg) fed on a diet without synthetic amino acids	10.9	49	37
breeding boar weighing from 66kg to less than 150kg	5.1	33	17.9
breeding boar weighing from 150kg	8.7	48	28

(1) All figures for poultry include litter

## SCHEDULE 2

Regulations 14(2), (4) and (5),27(3) and 28(4)

Calculating nitrogen in manure

## PART 1

## Standard Table

## Total amount of nitrogen in manure

Manure other than slurry	Total nitrogen in each tonne (kg)	
Manure other than slurry from—		
Cattle	6	
Pigs	7	
Sheep	7	
Ducks	6.5	
Horses	7	
Goats	6	
Manure from laying hens	19	
Manure from turkeys or broiler chickens	30	
Slurry	Total nitrogen in each cubic metre (kg)	
Cattle	2.6	
Pigs	3.6	
Separated cattle slurry (liquid fraction)—		
strainer box	1.5	
weeping wall	2	
mechanical separator	3	
Separated cattle slurry (solid fraction)	4	
Separated pig slurry (liquid fraction)	3.6	
Separated pig slurry (solid fraction)	5	
Dirty water	0.5	

## PART 2

## Sampling and analysis

## Slurry and other liquid and semi-liquid organic manure

**1.**—(1) In the case of slurry and other liquid and semi-liquid organic manure, at least five samples, each of two litres, must be taken.

(2) The slurry or other manure must, if it is reasonably practicable to do so, be thoroughly mixed before the samples are taken; and each sample must be taken from a different location.

(3) Each sample must be taken from a vessel; but if a tanker used for spreading is fitted with a suitable valve, the samples may be taken while spreading and each sample must be taken at intervals during the spreading.

(4) Each sample must be poured into a larger container, stirred thoroughly and a two-litre sample taken from that container and poured into a smaller, clean container.

(5) The two-litre sample must then be sent for analysis.

## Solid manures

**2.**—(1) In the case of solid manures, the samples must be taken from a manure heap.

- (2) At least ten samples of 1kg each must be taken, each from a different location in a heap.
- (3) Each sample must be taken at least 0.5 metres from the surface of the heap.
- (4) The samples must be placed on a clean, dry tray or sheet.
- (5) Any lumps must be broken up and the samples must be thoroughly mixed together.
- (6) A representative sample of at least 2kg must then be sent for analysis.

(7) If samples are being collected to calculate compliance with the whole farm limit for pigs and poultry, four samples for analysis must be taken in a calendar year (one taken in each quarter) from manure heaps not more than 12 months old.

## SCHEDULE 3

Regulation 36(4)

## The derogation conditions

## Introductory

1. In this Schedule—

"the occupier" means the occupier of a derogated holding; "the holding" means the derogated holding.

## Limit on application of livestock manure

2.—(1) The occupier must ensure that in the calendar year for which the derogation has effect—  $A \ge (Ngl/250) + (Nngl/170).$ 

(2) For the purposes of paragraph (1)—

"A" is the area of the derogated holding in hectares as at 1st January in that calendar year;

"Ngl" is the total amount of nitrogen in kilogrammes in livestock manure from animals listed as "grazing livestock" in Schedule 1, whether applied directly by an animal or by spreading;

"Nngl" is the total amount of nitrogen in kilogrammes in livestock manure from animals listed as "non-grazing livestock" in Schedule 1, whether applied directly by an animal or by spreading.

## Planning the spreading of phosphate fertiliser

**3.**—(1) The occupier must—

- (a) calculate the amount of phosphorus in the soil that is likely to be available for uptake by the crop during the growing season,
- (b) calculate the optimum amount of phosphate fertiliser that should be spread on the crop, taking into account the amount calculated under paragraph (a), and
- (c) produce a plan for the spreading of phosphate fertiliser for that growing season.

(2) In the case of permanent grassland, the occupier must comply with the duty under subparagraph (1) in each calendar year before spreading phosphate fertiliser.

(3) In the case of any other crop, the occupier must comply with the duty under sub-paragraph (1) before spreading any phosphate fertiliser for the first time for the purpose of fertilising a crop planted or to be planted.

### Other requirements for fertilisation plans

**4.**—(1) The fertilisation plan for the holding must—

- (a) include a sketch plan indicating the location of the fields to which the plan relates, and
- (b) clearly state in relation to any field referred to in the plan the nature of the fertilizer to be used.
- (2) The fertilisation plan must record—
  - (a) the amount of phosphorus calculated under paragraph 3(1)(a) and the method used to calculate that figure,
  - (b) the optimum amount of phosphate fertiliser that should be spread on the crop, taking into account the amount of phosphorus referred to in sub-paragraph (a),
  - (c) the amount of nitrogen likely to be available for uptake by the crop from any organic manure intended to be spread for crop uptake in the growing season during the calendar year in which it is spread,
  - (d) the amount of phosphate likely to be supplied to meet the requirement of the crop from any organic manure spread or intended to be spread during the calendar year;
  - (e) the amount of manufactured nitrogen fertiliser required (that is, the optimum amount of nitrogen required by the crop less the amount of nitrogen that will be available for crop uptake from any organic manure spread during that calendar year), and
  - (f) the amount of manufactured phosphate fertiliser required (that is, the optimum amount of phosphate required by the crop less the amount of phosphate supplied for crop uptake from any organic manure spread for the purpose of fertilising the crop during that calendar year).

### Soil sampling and analysis

**5.**—(1) At least every four years, the occupier must undertake soil sampling and analysis for the supply of phosphorus of at least every five hectares of the agricultural area of the derogated holding under the same cropping regime and soil type.

(2) The occupier may rely on the result of previous phosphorus soil sampling and analysis of the agricultural area of the derogated holding under the same cropping regime and soil type for the purposes of sub-paragraph (1), if the sampling and analysis was carried out within four years before the grant of the derogation.

(3) But where phosphorus soil sampling and analysis of the agricultural area of the derogated holding under the same cropping regime and soil type has not been carried out within four years before the grant of the derogation, such sampling and analysis must be carried out—

- (a) on 75% of the agricultural area no later than 12 months after the grant of the derogation;
- (b) on 100% of the agricultural area no later than 12 months after the date on which a derogation is next granted to the occupier.

### Additional information to be recorded during the year

6.—(1) Before spreading organic manure, the occupier must record—

- (a) the total phosphate content of the organic manure, and
- (b) the amount of phosphate likely to be supplied from the organic manure intended to be spread for the purpose of fertilising the crop in the growing season in which it is spread.
- (2) Before spreading manufactured phosphate fertiliser, the occupier must also record-
  - (a) the amount required (that is, the optimum amount of phosphate required by the crop less the amount of phosphate that will be supplied for crop uptake from any organic manure spread), and
  - (b) the month in which it is planned to do the spreading.

#### **Risk maps**

7.—(1) The risk map for the holding must—

- (a) show each field marked with a reference number or number to enable cross-reference to fields recorded in the fertilisation plan,
- (b) correspond with the agricultural area of the holding, and
- (c) be completed by 1st March in the calendar year to which it relates.

(2) Where a change in circumstances affects a matter referred to in paragraph (1), the occupier must update the map within one month of the change.

#### Maintaining holding as grassland

**8.** The occupier must maintain the holding to ensure at least 80% of the agricultural area is sown with grass during the calendar year to which the derogation applies.

#### **Closed period for ploughing grass**

**9.**—(1) Any temporary grassland on sandy soils on the holding must not be ploughed between 1stJuly and the following 31st December.

(2) Where livestock manure has been spread on grass on sandy soils on the holding between 1st September and 31st December, the grass must not be ploughed before the following 16th January.

(3) Where livestock manure has been spread on grass not on sandy soils on the holding between 15th October and the following 15th January, the grass must not be ploughed before the following 16th January.

### Sowing crops following grass

**10.**—(1) Where any grass on the holding is ploughed, the land must—

- (a) be sown with a crop with high nitrogen demand within four weeks beginning with the day after the ploughing, or
- (b) be sown with grass within six weeks beginning with that day.

(2) The reference to a crop with high nitrogen demand includes a reference to grass, potatoes, sugar beet, maize, wheat, oilseed rape, barley, brassica, rye and triticale.

#### **Crop rotation**

11. Crop rotation on the holding must not include leguminous or other plants fixing atmospheric nitrogen except for—

- (a) grass with less than 50% clover, or
- (b) any other leguminous plant that is under-sown with grass.

#### Recording the size of the holding

**12.**—(1) The occupier must record the total agricultural area and the area of the grass within the holding by 1st March for each calendar year.

(2) If the size of the holding or the area of the grass within it changes, the occupier must update the record under sub-paragraph (1) within one month beginning with the day after the day of the change.

#### Records relating to storage of manure during storage period

**13.** The occupier must make a record describing the livestock housing and manure storage systems together with the volume of manure storage in place on the holding by 1st March for each calendar year.

#### Record of nitrogen and phosphate produced by animals

14.—(1) The occupier must make a record of the expected number of livestock animals to be kept on the holding during the calendar year to which the derogation relates, and the category for each animal by reference to the categories in Schedule 1.

(2) Having complied with the duty under sub-paragraph (1), the occupier must calculate and record the amount of nitrogen and phosphate in manure expected to be produced by the livestock on the holding during that year by reference to Schedule 1.

(3) A record required under this paragraph must be made by 1st March for the calendar year concerned.

#### Livestock manure intended to be brought on to or sent off the holding

**15.**—(1) The occupier must—

- (a) make a record of the type and amount of livestock manure that is intended to be brought on to the holding and sent off the holding during the calendar year to which the derogation relates, and
- (b) calculate and record the amount of nitrogen in the livestock manure recorded under paragraph (a) in accordance with Part 1 or 2 of Schedule 2.

(2) A record required under this paragraph must be made by 1st March for the calendar year concerned.

### **Records of crops sown**

16. The occupier must, within one week of sowing a crop on which the occupier spreads or intends to spread nitrogen fertiliser, record the crop sown and the date of sowing.

## **Records of spreading phosphate fertiliser**

- 17. The occupier must record—
  - (a) within one week of spreading organic manure—
    - (i) the total phosphorus content, and
    - (ii) the amount of phosphate that was supplied for uptake by the crop, and
  - (b) within one week of spreading manufactured phosphate fertiliser-
    - (i) the date of spreading, and
    - (ii) the amount of phosphate spread.

## Recording the date of ploughing

18. The occupier must, within one week of ploughing on the holding, record the date of the ploughing.

### **Fertilisation accounts**

**19.**—(1) The occupier must prepare accounts for the calendar year to which the derogation relates and must submit the accounts to the Agency by the following 30th April.

- (2) The accounts must be in the form and manner published by the Agency.
- (3) The accounts must record—
  - (a) the total agricultural area of the holding,
  - (b) the area of the holding covered by each of the following-
    - (i) winter wheat,
    - (ii) spring wheat,
    - (iii) winter barley,
    - (iv) spring barley,
    - (v) winter oilseed rape,
    - (vi) sugar beet,
    - (vii) potatoes,
    - (viii) forage maize,
    - (ix) grass, and
    - (x) other crops,
  - (c) the number of animals kept on the holding and the category for each animal by reference to the categories in Schedule 1,
  - (d) the amount of nitrogen and phosphate in the manure produced by the animals on the holding by reference to that Schedule,
  - (e) the amount, type and characteristics of livestock manure brought on to or sent off the holding,
  - (f) the amount of nitrogen and phosphate in the manure recorded under paragraph (e) calculated in accordance with paragraph 14(2),

- (g) the weight in tonnes and the nitrogen content of all manufactured nitrogen fertiliser stocks kept on the holding between 1st January and 31st December, and
- (h) the weight in tonnes and the nitrogen content of all manufactured nitrogen fertiliser brought on to and sent off the holding between those dates.

## **EXPLANATORY NOTE**

(This note is not part of the Regulations)

These Regulations consolidate, with minor corrections and drafting changes, the provisions set out in regulation 44.

They continue to implement in England Council Directive 91/676/EEC (concerning the protection of waters against pollution by nitrates from agricultural sources) and Commission Decision 2009/431/ EC granting a derogation pursuant to that Directive.

Part 2 of the Regulations provides for the designation of land as nitrate vulnerable zones. It requires the Environment Agency to make recommendations to the Secretary of State about designations and for the Secretary of State to publish proposals. It establishes an appeals procedure against a proposed designation to the First-tier Tribunal.

Part 3 imposes annual limits on the amount of nitrogen from organic manure that may be applied or spread in a holding in a nitrate vulnerable zone.

Part 4 establishes requirements relating to the amount of nitrogen to be spread on a crop, and requires an occupier to plan in advance how much nitrogen fertiliser will be spread.

Part 5 requires an occupier to provide a risk map of the holding and imposes conditions on how, where and when to spread nitrogen fertiliser. It also establishes closed periods during which the spreading of nitrogen fertiliser is prohibited.

Part 6 makes provision for how nitrogen fertiliser must be stored.

Part 7 specifies which records must be kept.

Part 8 provides for the procedure for an application for a derogation and establishes an appeals procedure against the refusal of an application. Schedule 3 sets out the additional requirements to be met by an occupier of a derogated holding.

Part 9 requires the Secretary of State to review the Regulations.

Part 10 makes provision about enforcement. Breach of the Regulations is an offence punishable with a fine on summary conviction or on conviction on indictment. The Environment Agency is responsible for enforcing the Regulations.

An impact assessment has not been produced for this instrument as, given that it is a consolidation, no additional impact on business or the private or voluntary sector is foreseen.