
W E L S H S T A T U T O R Y
I N S T R U M E N T S

2008 No. 3143 (W. 278)

AGRICULTURE, WALES

WATER, WALES

**The Nitrate Pollution Prevention
(Wales) Regulations 2008**

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations revoke and replace, in so far as they apply in relation to Wales, the provisions (as set out in regulation 50) which controlled the application of nitrogen fertiliser in nitrate sensitive areas.

In relation to Wales, these Regulations continue to implement Council Directive 91/676/EEC concerning the protection of waters against pollution by nitrates from agricultural sources (OJ No. L.375, 31.12.91, p.1).

Principal changes

The principal changes are as follows.

These Regulations extend the areas designated as nitrate vulnerable zones.

The permitted annual level of nitrate application of livestock manure to grassland in a nitrate vulnerable zone is reduced from 250 kg/ha to 170 kg/ha (previously the lower limit applied to land other than grassland).

These Regulations change the period during which organic manure in a nitrate vulnerable zone must not be spread, and increase the amount of organic manure storage capacity required.

The Regulations

Part 2 of these Regulations designate nitrate vulnerable zones, and establish an appeals procedure against the designation.

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 (regulation 18), and imposes conditions on how, where and when to spread nitrogen fertiliser.

Part 6 establishes closed periods during which it is prohibited to spread nitrogen fertiliser.

Part 7 makes provision for how nitrogen fertiliser must be stored, and requires storage capacity for manure produced on the holding during the period specified in that Part.

Part 8 specifies which records must be kept.

Part 9 requires the Welsh Ministers to review the Regulations within set time scales.

These Regulations are enforced by the Environment Agency.

Breach of these Regulations is an offence punishable—

- (a) on summary conviction, with a fine not exceeding the statutory maximum, or
- (b) on conviction on indictment, with a fine.

A full impact assessment has been prepared for these Regulations and a copy is available from the Welsh Assembly Government, Cathays Park, Cardiff CF10 3NQ.

2008 No. 3143 (W. 278)

AGRICULTURE, WALES

WATER, WALES

**The Nitrate Pollution Prevention
(Wales) Regulations 2008**

Made 06 December 2008

Laid before the National Assembly for Wales
09 December 2008

Coming into force in accordance with
regulation 3

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The Welsh Ministers are designated⁽¹⁾ for the purposes of section 2(2) of the European Communities Act 1972 ⁽²⁾ in relation to matters relating to the protection of waters against pollution caused by nitrates from agricultural sources. In exercise of the powers conferred upon them by that section, and paragraph 1A of Schedule 2 to the European Communities Act 1972, the Welsh Ministers make the following Regulations.

These Regulations make provision for a purpose mentioned in section 2(2) of the European Communities Act 1972 and it appears to the Welsh Ministers that it is expedient for the references to European Community instruments in these Regulations to be construed as references to those instruments as amended from time to time.

PART 1

Introduction

Citation

1. The title of these Regulations is the Nitrate Pollution Prevention (Wales) Regulations 2008.

Application

2.—(1) These Regulations apply in relation to Wales in relation to any holding in a nitrate vulnerable zone designated as such in these Regulations.

(2) In the case of a holding partly in a nitrate vulnerable zone, the Regulations apply only in the part of the holding inside the zone, and a reference to a holding is a reference to that part.

Coming into force

3.—(1) These Regulations (other than regulation 22(1) and Part 7) come into force on 1 January 2009.

(2) Regulation 22(1) and Part 7 come into force on

(1) See S.I. 2001/2555 for the designation conferred upon the National Assembly for Wales. By virtue of section 59 of, and paragraph 28(1) of Schedule 11 to, the Government of Wales Act 2006, that designation is now vested in the Welsh Ministers.

(2) 1972 c. 68.

1 January 2012.

Transitional measures for holdings not previously in a nitrate-vulnerable zone

4. In a holding or part of a holding not part of a nitrate vulnerable zone under the Protection of Water Against Agricultural Nitrate Pollution (England and Wales) Regulations 1996⁽¹⁾ or the Protection of Water Against Agricultural Nitrate Pollution (Amendment) (Wales) Regulations 2002⁽²⁾—

- (a) Parts 3 and 4, regulations 19 to 21, 22(2), 23, Part 6 and Part 8 do not apply until 1 January 2010, and
- (b) the requirements in regulations 35(1) and 36(1) to record the size of the holding and storage capacity do not apply until 30 April 2010.

Meaning of “polluted water”

5. Water is polluted if—

- (a) it 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) it is eutrophic or may in the near future become eutrophic if these Regulations were not to apply there.

Interpretation

6.—(1) In these Regulations—

“appointed person” (*“person penodedig”*) means the person appointed by the Welsh Ministers under Regulation 8(1);

“eutrophic” (*“ewtroffig”*) means water that is 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 concerned;

“land that has a low run-off risk” (*“tir y mae’r risg o oferu drosto yn isel”*) means land that has an average slope less than 3° (3 degrees), does not have land drains (other than a sealed impermeable pipe), and is at least 50 metres from a watercourse or conduit leading to a watercourse;

“livestock” (*“da byw”*) means any animal (including poultry) specified in Schedule 1;

(1) SI 1996/888.

(2) S. I. 2002/2297 (W. 226).

“manufactured fertiliser” (“*gwaith a weithgynhyrchwyd*”) means any nitrogen fertiliser (other than organic manure) manufactured by an industrial process;

“nitrogen fertiliser” (“*gwrtaiith nitrogen*”) means any substance containing one or more nitrogen compounds used on land to enhance growth of vegetation and includes organic manure;

“poultry” (“*dofednod*”) means poultry specified in Schedule 1;

“organic manure” (“*tail organig*”) means any nitrogen fertiliser derived from animal, plant or human sources and includes livestock manure;

“sandy soil” (“*pridd tywodlyd*”) means any soil over sandstone, and any other soil where—

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

“shallow soil” (“*pridd tenau*”) is soil that is less than 40 cm deep;

“slurry” (“*slyri*”) 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 (in the case of excreta separated into its liquid and solid fractions, the slurry is the liquid fraction);

“spreading” (“*taenu*”) includes application to the surface of the land, injection 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) Any reference in these Regulations to a Community instrument is a reference to that instrument as amended from time to time.

PART 2

Designation of nitrate vulnerable zones

Designation of nitrate vulnerable zones

7.—(1) The areas marked as nitrate vulnerable zones on the maps marked “Nitrate Vulnerable Zones Index Map 2008” (“*Parthau Perygl Nitradau Map Mynegai 2008*”) and deposited at the offices of the Welsh Assembly Government, Cathays Park, Cardiff, CF10 3NQ, are designated as nitrate vulnerable zones for the purposes of these Regulations.

(2) These are areas of land that drain into polluted waters and that contribute to the pollution of those waters.

Application for a declaration

8.—(1) The owner or occupier of any holding within a nitrate vulnerable zone may apply to a person appointed by the Welsh Ministers for the purpose of these Regulations for a finding that the holding or part of it—

- (a) does not drain into water identified by the Welsh Ministers as being polluted, or
- (b) drains into water that the Welsh Ministers should not have identified as being polluted,

and accordingly the land should not be designated as a nitrate vulnerable zone.

(2) An application must be based on either—

- (a) data provided by the applicant, or
- (b) evidence provided by the applicant that the data used by the Welsh Ministers were incorrect.

(3) The Welsh Ministers must publish the manner and form in which the application must be made.

(4) An application must be made in writing on or before 31 March 2009, must be made in such manner and form required by the Welsh Ministers and must include all the documentation that the applicant relies on.

Proceedings before the appointed person

9.—(1) The appointed person must consider the application and make a finding whether or not the applicant has demonstrated, on the balance of probabilities, that the holding or part of the holding—

- (a) does not drain into water identified by the Welsh Ministers as being polluted; or
- (b) drains into water that the Welsh Ministers should not have identified as being polluted;

(2) The appointed person must arrive at its decision based on documentation submitted to it unless it decides that it needs additional information to form a judgment, in which case it may request an applicant, or the Welsh Ministers, to provide additional material, and in exceptional circumstances may convene an oral hearing.

(3) At an oral hearing the applicant and the Welsh Ministers have the right to appear, and the appointed person may permit any other party to appear.

(4) All parties must bear their own costs.

Effect of findings made by the appointed person

10.—(1) If the appointed person decides in favour of the applicant, the holding to which the application applies is no longer treated for the purposes of these Regulations as being in a nitrate vulnerable zone.

(2) If the appointed person finds that any body of water should not have been identified as being polluted, any holding draining into that body of water is no longer treated for the purposes of these Regulations as being in a nitrate vulnerable zone, and the Welsh Ministers must immediately notify the occupier of such a holding.

(3) The Welsh Ministers must publish all findings by the appointed person on the website of the Welsh Assembly Government.

Review of nitrate vulnerable zones

11.—(1) The Welsh Ministers must keep under review the eutrophic state of fresh surface waters, estuarial and coastal waters.

(2) Before 1 January 2013, and at least every four years subsequently, the Welsh Ministers must 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 on the quality of water intended for human consumption⁽¹⁾,

except for those sampling stations where the nitrate concentration in all previous samples taken for this purpose has been below 25 mg/l and no new factor likely to increase the nitrate content has appeared, in which case the monitoring programme need be repeated only every eight years.

(1) OJ No. L330, 5.12.1998, p. 32.

(3) At the end of each four year or eight year period at the latest the Welsh Ministers must—

- (a) identify water that is or could be affected by pollution if the controls in these Regulations are not applied in that area, using the criteria in Annex I to Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources⁽¹⁾;
- (b) identify land that drains into those waters, or water similarly identified in England, and that contributes to the pollution of 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.

PART 3

Limiting the application of organic manure

Application of livestock manure – total nitrogen limit for the whole holding

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

(2) The amount of nitrogen produced by livestock must be calculated in accordance with Schedule 1.

(3) In calculating the area of the holding for the purposes of ascertaining the amount of nitrogen permitted to be spread on the holding, no account is taken of surface waters, any hardstanding, buildings, roads or any woodland unless that woodland is used for grazing.

Spreading organic manure – nitrogen limits per hectare

13. 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 on the holding does not exceed 250 kg.

(1) OJ No. L375, 31.12. 1991, p. 1 as amended by Regulation (EC) 1882/2003 (OJ No. L284, 31.10.2003, p. 1).

PART 4

Crop requirements

Planning the spreading of nitrogen fertiliser

14.—(1) An occupier of a holding who intends to spread nitrogen fertiliser must—

- (a) calculate the amount of nitrogen in the soil that is likely to be available for uptake by the crop during the growing season (“the soil nitrogen supply”);
- (b) calculate the optimum amount of nitrogen that should be spread on the crop, taking into account the amount of nitrogen available from the soil nitrogen supply; and
- (c) produce a plan for the spreading of nitrogen fertiliser for that growing season.

(2) In the case of any crop other than permanent grassland, the occupier must do this before spreading any nitrogen fertiliser for the first time for the purpose of fertilising a crop planted or intended to be planted.

(3) In the case of permanent grassland the occupier must do this each year beginning 1 January before the first spreading of nitrogen fertiliser.

(4) The plan must be in permanent form.

(5) The 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) For the area planted or intended to be planted the plan must record—

- (a) the soil type;
- (b) the previous crop (if the previous crop was grass, whether it was managed by cutting or grazing);
- (c) the soil nitrogen supply calculated in accordance with paragraph (1) and the method used to establish this figure;
- (d) the anticipated month that the crop will be planted;
- (e) the anticipated yield (if arable); and
- (f) the optimum amount of nitrogen that should be spread on the crop, taking into account the amount of nitrogen available from the soil nitrogen supply.

Additional information to be recorded during the year

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

(2) The occupier must, before spreading the organic manure, record—

- (a) the area on which the organic manure will be spread;
- (b) the quantity of organic manure to be spread;
- (c) the planned date for spreading (month);
- (d) the type of organic manure;
- (e) the total nitrogen content of the organic manure; and
- (f) the amount of nitrogen likely to be available from the manure intended to be spread for crop uptake in the growing season in which it is spread.

(3) In the case of manufactured fertiliser the occupier must record—

- (a) the amount 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); and
- (b) the planned date for spreading (month).

Total nitrogen spread on a holding

16. Irrespective of the figure in the plan, an occupier must ensure that the total amount of—

- (a) nitrogen from manufactured fertiliser, and
- (b) nitrogen available for crop uptake from livestock manure in the growing season in which it is spread,

spread on the following crops, calculated in accordance with regulation 17, does not exceed the following limits in any twelve month period (the total amount of nitrogen permitted to be spread on any given crop is the figure in the second column, adjusted in accordance with the notes to the table and multiplied by the total area in hectares of that crop sown on the holding).

Maximum Nitrogen

<i>Crop</i>	<i>Permitted amount of nitrogen (kg)^(a)</i>	<i>Standard yield (tonne/ha)</i>
Autumn or early winter sown wheat	220 ^{(b) (c) (d)}	8.0
Spring-sown wheat	180 ^{(c) (d)}	7.0
Winter barley	180 ^{(b) (c)}	6.5
Spring barley	150 ^(c)	5.5
Winter oilseed rape	250 ^(e)	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	330 ^(f)	n/a

Notes

^(a) An additional 80 kg 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.

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

^(c) An additional 20 kg per hectare is permitted for every tonne that the expected yield exceeds the standard yield.

^(d) An additional 40 kg per hectare is permitted to milling wheat varieties.

^(e) This consists of a maximum of 30 kg per hectare in the autumn (allowed as an exemption to the closed period for manufactured nitrogen fertiliser) and a maximum of 220 kg per hectare in the spring. The spring amount may be increased by up to 30 kg per hectare for every half tonne that expected yield exceeds the standard yield.

^(f) An additional 40 kg per hectare is permitted to grass that is cut at least three times a year. From 1 January 2012 the permitted amount of nitrogen drops to 300 kg per hectare.

Calculating the amount of nitrogen available for crop uptake from livestock manure

17.—(1) For the purposes of regulation 16, the occupier must first establish the total amount of nitrogen in the manure, either using the table in Schedule 2 or by sampling and analysis in accordance with that Schedule.

(2) Once the total amount of nitrogen in the manure has been established, the following percentages are assumed to establish the amount of nitrogen in the manure that is available for crop uptake in the growing season in which it is spread.

Available percentage

<i>Type of livestock manure</i>	<i>Amount of nitrogen available for crop uptake in the growing season in which it is spread</i>	
	<i>Until 1 January 2012</i>	<i>From 1 January 2012</i>
Cattle slurry	20%	35%
Pig slurry	25%	45%
Poultry manure	20%	30%
Other livestock manure	10%	10%

PART 5

Controlling the spreading of nitrogen fertiliser

Risk maps

18.—(1) Before 1 January 2010 an occupier of a holding who spreads organic manure on that holding must produce a map of the holding (“a risk map”) in accordance with this regulation.

(2) If circumstances change the occupier must update the risk map within three months of the change.

(3) The risk map must show—

- (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 holding boundary;
- (d) areas with sandy or shallow soils;
- (e) land with an incline greater than 12°;
- (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 (this is optional for an occupier who does not intend to spread manure on low run-off risk land during the storage period in accordance with regulation 34).

(4) The occupier must keep a copy.

When to spread fertiliser

19.—(1) An occupier who intends to spread nitrogen fertiliser must first undertake a field inspection to consider the risk of nitrogen getting into surface water.

(2) No person may spread nitrogen fertiliser on that land if there is a significant risk of nitrogen getting into surface water, taking into account in particular—

- (a) the slope of the land, particularly if the slope is more than 12°;
- (b) any ground cover;
- (c) the proximity to surface water
- (d) the weather conditions
- (e) the soil type; and
- (f) the presence of land drains

(3) No person may spread nitrogen fertiliser if the soil is waterlogged, flooded or snow covered, or has been frozen for more than 12 hours in the previous 24 hours.

Spreading manufactured fertiliser near surface water

20. No person may spread manufactured fertiliser within 2 metres of surface water.

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

21.—(1) No person may spread organic manure within 10 metres of surface water.

(2) But livestock manure (other than slurry and poultry manure) may be spread there if—

- (a) it is spread on land managed for breeding wader birds or as a species-rich semi-natural grassland and the land is—
 - (i) notified as a Site of Special Scientific Interest under the Wildlife and Countryside Act 1981⁽¹⁾; or
 - (ii) subject to an agri-environment commitment entered into under Council Regulation (EC) No. 1257/1999 (on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF)⁽²⁾) or under Council Regulation (EC) No. 1698/2005 (on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) ⁽³⁾);
- (b) it is spread between 1 June and 31 October inclusive;
- (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) No person may spread organic manure within 50 metres of a borehole, spring or well.

Controlling how nitrogen fertiliser is spread

22.—(1) Any person spreading slurry must use spreading equipment with a low spreading trajectory, that is, below 4 metres from the ground.

(2) Any person spreading nitrogen fertiliser must do so in as accurate a manner as possible.

(1) 1981 c. 69.

(2) OJ No. L160, 26.6.1999, p. 80.

(3) OJ No. L277, 21.10.2005, p. 1.

Incorporating organic manure into the ground

23.—(1) Any 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 and liquid digested sewage sludge (that is, 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 in separated bands.

(4) Any other organic manure (other than organic manure spread as a mulch on sandy soil) must be incorporated into the soil as soon as practicable, and within 24 hours at the latest, if the land is within 50 metres of surface water and slopes in such a way that there may be run-off to that water.

PART 6

Closed periods for spreading nitrogen fertiliser

Meaning of “organic manure with high readily available nitrogen”

24. In this Part “organic manure with high readily available nitrogen” (*“tail organig gyda chyfraddau uchel o nitrogen sydd ar gael yn rhwydd”*) means organic manure in which more than 30 per cent of the total nitrogen content is available to the crop at the time of spreading.

Closed periods for spreading organic manure with high readily available nitrogen

25. No person may spread organic manure with high readily available nitrogen on land during the following dates, all inclusive (“the closed period”)—

The closed period

<i>Soil type</i>	<i>Grassland</i>	<i>Tillage land</i>
Sandy or shallow soil	1 September to 31 December	1 August to 31 December
All other soils	15 October to 15 January	1 October to 15 January

Exemptions: crops sown before 15 September

26. Spreading organic manure with high readily available nitrogen on tillage land with sandy or shallow soil is permitted between 1 August and 15 September inclusive provided that the crop is sown on or before 15 September.

Exemptions for organic holdings

27. An occupier of a holding registered as an organic producer with a body registered with the Advisory Committee on Organic Standards **(1)** may spread organic manure with high readily available nitrogen at any time on—

- (a) crops listed in the table in Schedule 3 (permitted crops for the closed period), or
- (b) other crops in accordance with written advice from a person who is a member of the Fertiliser Advisers Certification and Training Scheme**(2)**,

provided that each hectare on which organic manure is spread does not receive more than 150 kg total nitrogen between the start of the closed period and the end of February.

Restrictions following the closed period

28. From the end of the closed period until the end of February—

- (a) the maximum amount of slurry that may be spread at any one time is 50 cubic metres per hectare and the maximum amount of poultry manure that may be spread at any one time is 8 tonnes per hectare; and
- (b) there must be at least three weeks between each spreading.

Times in which spreading manufactured nitrogen fertiliser is prohibited

29.—(1) No person may spread manufactured nitrogen fertiliser on land during the following periods (all dates inclusive)—

- (a) in the case of grassland, from 15 September to 15 January, or

(1) The Advisory Committee on Organic Standards is a non-executive, non departmental public body that approves organic inspection bodies.

(2) The scheme is administered by Basis Registration Ltd, and a list of qualified persons is available from them on request or at their website, www.basis-reg.com.

(b) in the case of tillage land, from 1 September to 15 January.

(2) Spreading fertiliser during these periods is permitted on the crops specified in the Table in Schedule 3, provided that the maximum rate in column 2 is not exceeded.

(3) Spreading during those periods on crops not in Schedule 3 is permitted on the basis of written advice from a person who is a member of the Fertiliser Advisers Certification and Training Scheme.

Defence

30. In any proceedings for any breach of a provision in this Part relating to organic manure, it is a defence for the defendant to prove that—

- (a) the breach took place before 1 January 2012, and
- (b) the holding did not have the storage facilities for organic manure required by Part 7 at the time of the breach.

PART 7

Storage of organic manure

Storage of organic manure

31. An occupier of a holding who stores any organic manure (other than slurry), or any bedding contaminated with any organic manure, must store it—

- (a) in a vessel;
- (b) in a covered building;
- (c) on an impermeable surface; or
- (d) in the case of solid manure that can be stacked in a free standing heap and that does not drain liquid from the material, on a temporary field site.

Temporary field sites

32.—(1) A temporary field site must not be—

- (a) in a field liable to flooding or becoming waterlogged;
- (b) within 50m of a spring, well or borehole or within 10m 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.

(2) 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

33. Separation of slurry into its solid and liquid fractions must either be carried out mechanically or on an impermeable surface where the liquid fraction drains into a suitable receptacle.

Storage capacity

34.—(1) An occupier of a holding who keeps any of the animals specified in Schedule 1 must provide sufficient storage for all slurry produced on the holding during the storage period, and 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 in accordance with 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—

- (a) sent off the holding; or
- (b) spread on land that has a low run-off risk (provided that this is done in accordance with the restrictions on spreading in these Regulations); but in this case 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.

(5) For the purposes of this regulation the “storage period” (all dates inclusive) is—

- (a) the period between 1 October and 1 April for pigs and poultry;
- (b) the period between 1 October and 1 March in any other case.

PART 8

Calculations and records

Recording the size of the holding

35.—(1) By 30 April 2009 the occupier of a holding must record the total size of the holding calculated in accordance with regulation 12(3).

(2) If the size of the holding changes this record must be updated within one month.

Records relating to storage of manure during the storage period

36.—(1) By 30 April 2009 an occupier of a holding with livestock must calculate and record—

- (a) the amount of manure that will be produced by the anticipated number of animals that will be kept in a building or on hardstanding during the storage period referred to regulation 34, using the figures in Schedule 1;
- (b) the amount of storage capacity (slurry vessels and hardstanding) required to enable compliance with regulation 34 (storage capacity), 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 liquid other than slurry likely to enter the vessel;
- (c) the current capacity for storage on the holding.

(2) An occupier who introduces animals on to a holding for the first time must comply with paragraph (1) within one month of the introduction of the animals.

(3) If the amount of storage capacity changes the occupier must record the change within one week.

Annual records relating to storage

37.—(1) Before 30 April each year the occupier of a holding with livestock must record, for the previous storage period referred to in regulation 34 the number and category of animals in a building or on a hardstanding during the storage period.

(2) The occupier must also record the sites used for field heaps and the dates of use.

Record of nitrogen produced by animals on the holding

38.—(1) Before 30 April every year the occupier must make a record of—

- (a) the number and category (in accordance with the categories in Schedule 1) of animals on the holding during the previous calendar year, 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 using the Table in Schedule 1.

(3) Alternatively, in the case of permanently housed pigs or poultry, the occupier may use—

- (a) software approved by the Welsh Ministers; 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) An occupier who used software approved by the Welsh Ministers must keep a printout of the result.

Livestock manure brought on to or sent off the holding

39.—(1) An occupier who brings livestock manure on to a holding must, within one week record—

- (a) the type and amount of livestock manure;
- (b) the date it is brought on to the holding;
- (c) the nitrogen content, and if known;
- (d) the name and address of the supplier.

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

- (a) the type and amount of livestock manure;
- (b) the date it is 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 the livestock manure brought on to a holding is not known, the occupier must ascertain it, as soon as is reasonably practicable after arrival, and record it within one week.

(4) All nitrogen content must be ascertained using either the standard figures in Part 1 of Schedule 2 or by sampling and analysis as set out in Part 2 of that Schedule.

Sampling and analysis

40.—(1) Any person using sampling and analysis to determine nitrogen content in organic manure must keep the original report from the laboratory.

Records of crops sown

41. An occupier who intends to spread nitrogen fertiliser must record within one week of sowing a crop—

- (a) the crop sown; and
- (b) the date of sowing.

Records of spreading nitrogen fertiliser

42.—(1) Within one week of spreading organic manure the occupier must record—

- (a) the area on which organic manure is spread;
- (b) the quantity of organic manure spread;
- (c) the date or dates;
- (d) the methods of spreading;
- (e) the type of organic manure;
- (f) the total nitrogen content;
- (g) the amount of nitrogen that was available to the crop.

(2) Within one week of spreading manufactured fertiliser the occupier must record—

- (a) the date of spreading; and
- (b) the amount of nitrogen spread.

Subsequent records

43.—(1) An occupier who has used nitrogen fertiliser must record the yield achieved by an arable crop within one week of ascertaining it.

(2) Before 30 April each year an occupier must record how any grassland was managed in the previous calendar year.

Keeping of advice

44. An occupier must keep a copy of any advice from a person who is a member of the Fertiliser Advisers Certification and Training Scheme relied on for any purpose under these Regulations.

Duration of records

45. Any person required to make a record under these Regulations must keep it for five years.

PART 9

Review

Monitoring and review

46.—(1) At least every four years the Welsh Ministers must 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 if necessary revise them.

(2) In order to do this the Welsh Ministers must establish a monitoring programme to assess the effectiveness of the restrictions in these Regulations.

(3) When carrying out this review the Welsh Ministers must take into account—

- (a) available scientific and technical data, particularly with reference to respective nitrogen contributions originating from agricultural and other sources; and
- (b) regional environmental conditions.

Public participation

47.—(1) When carrying out this review the Welsh Ministers must ensure that the public is given early and effective opportunities to participate.

(2) The Welsh Ministers must make adequate arrangements for public participation to enable the public to prepare and participate effectively.

(3) the Welsh Ministers must ensure that—

- (a) the public is consulted about any proposals 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) the public is entitled to express comments and opinions when all options are open before decisions on the plans and programmes are made.

(4) The Welsh Ministers must identify the members of the public entitled to be consulted, including non-governmental organisations promoting environmental protection.

(5) Reasonable time must be allowed for consultation.

(6) Consultation must be taken into account in reaching a decision.

(7) Following consultation the Welsh Ministers must inform the public about the decisions taken and the

reasons and considerations upon which those decisions are based, including information about the public participation process.

PART 10

Enforcement

Offences and penalties

48.—(1) Any person who breaches any provision of these Regulations is guilty of an offence and liable —

- (a) on summary conviction, to a fine not exceeding the statutory maximum, or
- (b) on conviction on indictment, to a fine.

(2) Where a body corporate is guilty of an offence under these Regulations, and that 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) any director, manager, secretary or other similar person of the body corporate, or
- (b) any person who was purporting to act in any such capacity,

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

(3) For the purposes of this regulation, “director” (“*cyfarwyddwr*”), in relation to a body corporate whose affairs are managed by its members, means a member of the body corporate.

Enforcement

49. These Regulations are enforced by the Environment Agency.

Revocations

50. The following are revoked in so far as they apply in relation to Wales—

- (a) the Protection of Water Against Agricultural Nitrate Pollution (England and Wales) Regulations 1996(1);
- (b) the Action Programme for Nitrate Vulnerable Zones (England and Wales) Regulations 1998(2);

(1) S. I. 1996/888.
(2) S. I. 1998/1202.

- (c) the Protection of Water Against Agricultural Nitrate Pollution (Amendment) (Wales) Regulations 2002(1); and
- (d) the Protection of Water Against Agricultural Nitrate Pollution (England and Wales) (Amendment) Regulations 2006(2).

Jane Davidson

Minister for Environment, Sustainability and Housing,
one of the Welsh Ministers

06 December 2008

(1) S. I. 2002/2297 (W. 226).
(2) S. I. 2006/1289.

SCHEDULE 1

Regulations 6, 12, 34, 36 and 38

Amount of manure and nitrogen produced by livestock

Pigs

<i>Weight</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>
From 7kg and less than 13kg:	1.3	4.1
From 13kg and less than 31kg:	2	14.2
From 31kg and less than 66kg—		
dry fed:	3.7	24
liquid fed:	7.1	24
From 66 kg and—		
intended for slaughter—		
dry fed:	5.1	33
liquid fed:	10	33
sows intended for breeding that have not yet had their first litter:	5.6	38
sows (including litters up to 7 kg) fed on a diet supplemented with synthetic amino acids:	10.9	44
sows (including litters up to 7 kg) fed on a diet without synthetic amino acids:	10.9	49
breeding boars from 66kg up to 150kg:	5.1	33
breeding boars, from 150kg:	8.7	48

Cattle

<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>
Calfs (all categories) up to 3 months:	7	23
Dairy cows —		
From 3 months and less than 13 months:	20	95
From 13 months up to first calf:	40	167
After first calf and—		
annual milk yield more than 9000 litres:	64	315

<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>
annual milk yield between 6000 to 9000 litres:	53	276
annual milk yield less than 6000 litres:	42	211
Beef cows or steers ⁽¹⁾ . —		
From 3 months and less than 13 months:	20	91
From 13 months and less than 25 months:	26	137
From 25 months—		
females or steers for slaughter:	32	137
females for breeding—		
weighing 500 kg or less:	32	167
weighing more than 500 kg:	45	227
Bulls		
Non-breeding, 3 months and over:	26	148
Breeding—		
from 3 months and less than 25 months:	26	137
from 25 months:	26	132

⁽¹⁾ Castrated males

Sheep

<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>
From 6 months up to 9 months old:	1.8	5.5
From 9 months old to first lambing, first tugging or slaughter:	1.8	3.9
After lambing or tugging ⁽²⁾ . —		
weight less than 60 kg:	3.3	21
weight over 60 kg:	5	33

⁽²⁾ In the case of an ewe, this figure includes one or more suckled lambs until the lambs are aged six months.

Goats, deer and horses

<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>
Goats	3.5	41
Deer —		
breeding:	5.0	42
other:	3.5	33
Horses	24	58

Poultry

<i>Category</i>	<i>Daily manure produced by each animal (kilograms)</i>	<i>Daily nitrogen produced by each animal (grams)</i>
Chickens used for production of eggs for human consumption—		
less than 17 weeks:	0.04	0.64
from 17 weeks (caged):	0.12	1.13
from 17 weeks (not caged):	0.12	1.5
Chickens raised for meat:	0.06	1.06
Chickens raised for breeding—		
less than 25 weeks:	0.04	0.86
from 25 weeks:	0.12	2.02
Turkeys—		
male:	0.16	3.74
female:	0.12	2.83
Ducks:	0.10	2.48
Ostriches:	1.6	3.83

Note: all figures for poultry include litter

SCHEDULE 2

Regulations 17, 38 and 39

Calculating nitrogen in manure

PART 1

Standard table

Total amount of Nitrogen in manure

<i>Manure other than slurry</i>	<i>Total Nitrogen in each tonne (kg)</i>
<i>Manure other than slurry from—</i>	
cattle:	6
pigs:	7
sheep:	6
ducks:	6.5
Manure from laying hens:	16
Manure from turkeys or broiler chickens:	30
<hr/>	
<i>Slurry</i>	<i>Total Nitrogen in each cubic metre (kg)</i>
<hr/>	
Dairy cattle:	3
Beef cattle:	2
Pigs:	4.0
<i>Separated cattle slurry (liquid fraction)—</i>	
strainer box:	1.5
weeping wall:	2.0
mechanical separator:	3.0
Separated cattle slurry (solid fraction):	4
Separated pig slurry (liquid fraction):	3.6
Separated pig slurry (solid fraction):	5

PART 2

Sampling and analysis

Slurry

- 1.—(1) At least five samples, each of 2 litres, must be taken.
- (2) The sample must be taken from a slurry vessel, and—
 - (a) if reasonably practicable, the slurry must be thoroughly mixed before the samples are taken, and
 - (b) each sample must be taken from a different location.

(3) 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) The samples must be poured into a larger container, stirred thoroughly and a 2 litre sample must be taken from that container and poured into a smaller clean container.

(5) That sample must then be sent for analysis.

Solid manures

2.—(1) The samples must be taken from a manure heap

(2) At least ten sub-samples of 1kg each must be taken, each from a different location in a heap.

(3) Each sub- sample must be taken at least 0.5 metres from the surface of the heap.

(4) 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.

(5) The sub-samples must be placed on a clean, dry tray or sheet.

(6) Any lumps must be broken up and the sub-samples must be thoroughly mixed together.

(7) A representative sample of at least 2kg must then be sent for analysis.

SCHEDULE 3

Regulations 27 and 29

Permitted crops for the closed period

<i>Crop</i>	<i>Maximum nitrogen rate (kg/hectare)</i>
Oilseed rape, winter. ⁽¹⁾	30
Asparagus	50
Brassica ⁽²⁾	100
Grass. ⁽¹⁾ ⁽³⁾	80
Over-wintered salad onions	40
Parsley	40
Bulb onions	40

⁽¹⁾ Nitrogen must not be spread on to these crops after 31 October.

⁽²⁾ An additional 50 kg of nitrogen per hectare may be spread every four weeks during the closed period up to the date of harvest.

⁽³⁾ A maximum of 40 kg of nitrogen per hectare may be spread at any one time.