

2003 No. 259

EUROPEAN COMMUNITIES

WATER AND SEWERAGE

**The Protection of Water Against Agricultural Nitrate
Pollution Regulations (Northern Ireland) 2003**

Made - - - - - *31st May 2003*

Coming into operation *1st June 2003*

The Department of the Environment and the Department of Agriculture and Rural Development, being departments designated(a) for the purposes of section 2(2) of the European Communities Act 1972(b) in relation to measures relating to the prevention, reduction and elimination of pollution of water, acting jointly in exercise of the powers conferred on them by that section and of every other power enabling them in that behalf, hereby make the following Regulations:

Citation and commencement

1. These Regulations may be cited as the Protection of Water Against Agricultural Nitrate Pollution Regulations (Northern Ireland) 2003 and shall come into operation on 1st June 2003.

Interpretation

2.—(1) In these Regulations –

“action programme” means an action programme established in accordance with regulation 6;

“Appeals Commission” means the Water Appeals Commission for Northern Ireland;

“chemical fertilizer” means any fertilizer which is manufactured by an industrial process;

“the Department” means the Department of the Environment;

“the Departments” means the Department of the Environment and the Department of Agriculture and Rural Development acting jointly;

“the Directive” means Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources(c);

“the Departments’ offices” means the Department of the Environment offices at Calvert House, 23 Castle Place, Belfast BT1 1FY and the Department of Agriculture and Rural Development offices at Dundonald House, Upper Newtownards Road, Belfast BT4 3SB;

(a) S.I. 1989/2393

(b) 1972 c. 68

(c) O.J. No. L375, 31.12.91, p. 1

“eutrophication” means the enrichment of water by nitrogen compounds, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned;

“fertilizer” means any substance containing a nitrogen compound or nitrogen compounds utilised on land to enhance growth of vegetation, and may include livestock manure, the residues from fish farms and sewage sludge;

“freshwater” means naturally occurring water having a low concentration of salts, which is often acceptable as suitable for abstraction and treatment to produce drinking water;

“groundwater” means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil;

“land application” means the addition of materials to land whether by spreading on the surface of the land, injection into the land, placing below the surface of the land or mixing with the surface layers of the land;

“livestock” means all animals kept for use or profit;

“livestock manure” means waste products excreted by livestock or a mixture of litter or waste products excreted by livestock, even in processed form;

“nitrate vulnerable zone” has the meaning given by regulation 3;

“nitrogen compound” means any nitrogen-containing substance except for gaseous molecular nitrogen;

“the Objectives” means the objectives specified in Article 1 of the Directive, that is to say –

- (a) reducing water pollution caused or induced by nitrates from agricultural sources; and
- (b) preventing further such pollution; and

“pollution” means the discharge, directly or indirectly, of nitrogen compounds from agricultural sources into the aquatic environment the results of which are such as to cause hazards to human health, harm to living resources and to aquatic ecosystems, damage to amenities or interference with other legitimate uses of water.

(2) Other expressions used in these Regulations have the same meaning as in the Directive.

(3) The Interpretation Act (Northern Ireland) 1954(a) shall apply to these Regulations as it applies to a Measure of the Northern Ireland Assembly.

Nitrate vulnerable zones

3.—(1) In these Regulations, “nitrate vulnerable zone” means any of the areas –

- (a) designated by the Departments;
- (b) referred to in Schedule 1; and
- (c) more particularly shown coloured pink on the maps contained in the volume of maps marked “Volume of Maps of Nitrate Vulnerable Zones (Northern Ireland)”, S.R. 2003 No. 259 and deposited at the Departments’ offices;

being all known areas of land in Northern Ireland which drain into and contribute to pollution of the waters which the Departments have identified, in accordance with the criteria set out in Schedule 2, as waters affected by pollution and waters which could be affected by pollution if action pursuant to regulation 6 were not taken.

(2) The Departments shall ensure that –

- (a) the maps referred to in paragraph (1) are made accessible to the public –
 - (i) through the Departments’ websites; and
 - (ii) at the Departments’ offices;

(a) 1954 c. 33 (N.I.)

- (b) any person who wishes to know whether his land is included in a nitrate vulnerable zone referred to in Schedule 1 Part 2 is provided with the relevant information (including a hard copy of the relevant extract from the deposited maps) if a request in writing is made to either the offices of the Department of the Environment or the Department of Agriculture and Rural Development and is received by that Department before 2nd August 2003; and
- (c) such other steps are taken as the Departments consider appropriate for giving adequate publicity to –
 - (i) any nitrate vulnerable zone referred to in Schedule 1 Part 2; and
 - (ii) the right conferred by regulation 9 and how it may be exercised.

(3) The Departments shall, by 19th December 2005 and at least every four years thereafter, review and if necessary revise or add to the designation of nitrate vulnerable zones to take into account changes and factors unforeseen at the time of the previous designation.

(4) For the purposes of facilitating a review carried out pursuant to paragraph (3) the Departments shall, in accordance with the criteria set out in Schedule 2, review and if necessary revise or add to the identification of waters affected by pollution and waters which could be affected by pollution if action pursuant to regulation 6 is not taken.

Monitoring

4.—(1) For the purpose of the designation and revision of designations of nitrate vulnerable zones, the Department –

- (a) subject to paragraph (2), by 19 December 2005 and at least every 4 years thereafter, shall monitor the nitrate concentration in freshwaters over a period of 1 year –
 - (i) at surface water sampling stations laid down in Article 5(4) of Directive 75/440/EEC^(a) or at other sampling stations which are representative of surface waters, or at both, at least monthly and more frequently during flood periods; and
 - (ii) at sampling stations which are representative of groundwater aquifers, at regular intervals and taking into account the provisions of Directive 80/778/EEC^(b); and
- (b) shall review the eutrophic state of fresh surface waters, estuarial and coastal waters by 19th December 2003 and every 4 years thereafter.

(2) Where the nitrate concentrations in all previous samples taken in pursuance of the Directive at any sampling station has been below 25 mg/l and no new factor likely to increase the nitrate content has appeared, paragraph (1)(a) shall have effect in relation to that sampling station as if the reference to 2005 and the reference to 4 years were references to 2009 and 8 years respectively.

(3) Monitoring under this regulation shall be carried out using the reference methods of measurement set out in Schedule 3.

Code of good agricultural practice

5. With the aim of providing for all waters a general level of protection against pollution, the Department of Agriculture and Rural Development shall –

- (a) establish a code of good agricultural practice, to be implemented by farmers on a voluntary basis, which should contain provisions covering at least the items mentioned in Schedule 4;
- (b) set up where necessary a programme, including the provision of training and information for farmers, promoting the application of the code of good agricultural practice.

(a) O.J. No. L194, 25.7.75, p. 26

(b) O.J. No. L229, 30.8.80, p. 11

Action programmes

6.—(1) The Departments shall, for the purposes of achieving the Objectives, by Regulations under section 2(2) of the European Communities Act 1972, make provision establishing action programmes in respect of nitrate vulnerable zones.

(2) An action programme may relate to more than one nitrate vulnerable zone, and different action programmes may be established in respect of different nitrate vulnerable zones or parts of zones.

(3) An action programme shall be established in respect of a nitrate vulnerable zone designated in accordance with regulation 3(3) not later than one year after the designation of that zone.

(4) An action programme shall be implemented in the case of a nitrate vulnerable zone falling within paragraph (3), within 4 years of its establishment.

(5) The Department shall draw up and implement suitable monitoring programmes to assess the effectiveness of action programmes.

(6) The Departments shall, at least every 4 years, review and if necessary revise the action programmes, including any additional measures taken pursuant to regulation 7(2).

Contents of action programmes

7.—(1) An action programme shall include –

- (a) the provisions described in Schedule 5; and
- (b) provisions embodying the measures contained in the code of good agricultural practice established pursuant to regulation 5, other than such provisions as have been superseded by the provisions described in Schedule 5.

(2) Action programmes shall also contain such additional requirements, restrictions and prohibitions as the Departments consider necessary if, at the outset or in the light of experience gained in implementing the programmes, it becomes apparent to them that the provisions referred to in paragraph (1) will not be sufficient for achieving the Objectives.

(3) In determining the provisions of an action programme, the Departments shall take into account –

- (a) available scientific and technical data, mainly with reference to respective nitrogen contributions originating from agricultural and other sources;
- (b) environmental conditions in the relevant regions.

(4) In selecting the additional provisions referred to in paragraph (2), the Departments shall take into account the effectiveness and cost of such provisions relative to other possible preventative provisions.

Transfrontier consultation

8.—(1) Where any waters identified by the Departments, in accordance with the criteria in Schedule 2, as waters affected by pollution and waters which could be affected by pollution if action pursuant to regulation 6 were not taken, are affected by pollution from waters from the Republic of Ireland draining directly or indirectly into them, the Departments shall notify the competent authorities in the Republic of Ireland and the Commission of the relevant facts.

(2) The Departments, in consultation with the competent authorities in the Republic of Ireland shall organise, where appropriate with the Commission, the concertation necessary to identify the sources in question and the measures to be taken to protect the waters that are affected.

Appeals

9.—(1) Any person whose land is included in a nitrate vulnerable zone referred to in Schedule 1 Part 2 may appeal by notice in writing to the Appeals Commission against any

factual error which may have been made in applying the methodology(a) used by the Departments for identifying those nitrate vulnerable zones.

(2) The notice of appeal must be delivered to the Appeals Commission before 31st August 2003 or within such longer period as the Appeals Commission may allow.

(3) The notice of appeal must state the facts on which the appellant relies in support of his appeal.

(4) The Departments shall ensure that the Appeals Commission is provided with any explanation or information about the methodology or its use which the Appeals Commission needs to determine an appeal under this regulation.

(5) The Appeals Commission shall determine whether or not a factual error was made in applying the methodology used by the Departments for identifying those nitrate vulnerable zones referred to in paragraph (1), and any modification of the nitrate vulnerable zone which is required to rectify that error.

(6) Where the Appeals Commission determines in accordance with paragraph (5) that an error was made, and the modification to the nitrate vulnerable zone which is required to rectify that error, the Department shall give effect to that modification.

Amendment of the Action Programme for Nitrate Vulnerable Zones Regulations (Northern Ireland) 1999

10.—(1) The Action Programme for Nitrate Vulnerable Zones Regulations (Northern Ireland) 1999, shall be amended in accordance with paragraph (2) and (3).

(2) For the definition of “nitrate vulnerable zone” in regulation 2(1) there shall be substituted the following definition –

“nitrate vulnerable zone” has the same meaning as in the Protection of Water Against Agricultural Nitrate Pollution Regulations (Northern Ireland) 2003”

(3) For paragraph 9(2) of the Schedule (application of organic manure) there shall be substituted the following paragraph –

“(2) For the purposes of sub-paragraph (2), the specified amount is the sum of –

- (a) the number of hectares of grassland on the farm multiplied by 250 kg; and
- (b) the number of hectares of agricultural land other than grassland on the farm multiplied by –
 - (i) 210 kg in relation to a year ending on or before 1st June 2003 where that land falls within an area referred to in Schedule 1 Part 1 to the Protection of Water Against Agricultural Nitrate Pollution Regulations (Northern Ireland) 2003; or
 - (ii) 210 kg in relation to a year ending on or before 1st June 2007 where that land falls within an area referred to in Schedule 1 Part 2 to the Protection of Water Against Nitrate Pollution Regulations (Northern Ireland) 2003; or
 - (iii) 170 kg in relation to other years.”

Revocation

11. The Protection of Water Against Agricultural Nitrate Pollution Regulations (Northern Ireland) 1996(b); The Protection of Water Against Agricultural Nitrate Pollution (Amendment) Regulations (Northern Ireland) 1997(c); and The Protection of Water Against Agricultural Nitrate Pollution (Amendment) Regulations (Northern Ireland) 1999(d) are hereby revoked.

(a) A description of the methodology is available through DOE and DARD websites and for inspection at the DOE and DARD offices.

(b) S.R. 1996 No. 217

(c) S.R. 1997 No. 256

(d) S.R. 1999 No. 3

Sealed with the Official Seal of the Department of Agriculture and Rural Development on 31st May 2003.

(L.S.)

David Small

A senior officer of the Department of Agriculture and Rural Development

Sealed with the Official Seal of the Department of the Environment on 31st May 2003.

(L.S.)

Judena Goldring

A senior officer of the Department of the Environment

SCHEDULE 1

Regulation 3(1)

NITRATE VULNERABLE ZONES

PART 1

Comber No 1

Comber No 2

Cloghmills

PART 2

Kilrea

Knockcloghrim

Whitehead

Dromara

SCHEDULE 2

Regulation 3(1)

CRITERIA FOR IDENTIFYING WATERS REFERRED TO IN REGULATION 3(1)

1. Waters referred to in regulation 3(1) shall be identified making use, *inter alia*, of the following criteria:

- (a) Whether surface freshwaters, in particular those used or intended for the abstraction of drinking water, contain or could contain, if action pursuant to regulation 6 is not taken, more than the concentration of nitrates laid down in accordance with Directive 75/440/EEC;
- (b) whether groundwaters contain more than 50 mg/l nitrates or could contain more than 50 mg/l nitrates if action pursuant to regulation 6 is not taken;
- (c) whether natural freshwater lakes, other freshwater bodies, estuaries, coastal waters and marine waters are found to be eutrophic or in the near future may become eutrophic if action pursuant to regulation 6 is not taken.

2. In applying these criteria, the Departments shall also take account of:

- (a) The physical and environmental characteristics of the waters and land;
- (b) the current understanding of the behaviour of nitrogen compounds in the environment (water and soil);
- (c) the current understanding of the impact of the action to be taken pursuant to regulation 6.

SCHEDULE 3

Regulation 4(3)

REFERENCE METHODS OF MEASUREMENT

Chemical Fertilizer

Nitrogen compounds shall be measured using the method described in Commission Directive 77/535/EEC of 22nd June 1977 on the approximation of the laws of the member states relating to methods of sampling and analysis for fertilizers(a), as amended by Directive 89/519/EEC(b).

(a) O.J. No. L213, 22.8.77, p. 1
(b) O.J. No. L265, 12.9.89, p. 30

Freshwaters, coastal waters and marine waters

Nitrate concentration shall be measured in accordance with Article 4a(3) of Council Decision 77/795/EEC of 12th December 1977 establishing a common procedure for the exchange of information on the quality of surface fresh water in the Community(a), as amended by Decision 86/574/EEC(b).

SCHEDULE 4

Regulation 5

CODE OF GOOD AGRICULTURAL PRACTICE

1. A code of good agricultural practice established pursuant to regulation 5 shall contain provisions covering the following items, in so far as they are relevant and taking account of the objective of reducing pollution by nitrates and of conditions in different regions:

- (1) Periods when the land application of fertilizer is inappropriate;
- (2) the land application of fertilizer to steeply sloping ground;
- (3) the land application of fertilizer to water-saturated, flooded, frozen or snow-covered ground;
- (4) the conditions for land application of fertilizer near water courses;
- (5) the capacity and construction of storage vessels for livestock manures, including measures to prevent water pollution by run-off and seepage into the groundwater and surface water of liquids containing livestock manures and effluents from stored plant materials such as silage;
- (6) procedures for the land application, including rate and uniformity of spreading, of both chemical fertilizer and livestock manure, that will maintain nutrient losses to water at an acceptable level.

2. A code of good agricultural practice established pursuant to regulation 5 may also include provisions covering the following items:

- (1) Land use management, including the use of crop rotation systems and the proportion of the land area devoted to permanent crops relative to annual tillage crops;
- (2) the maintenance of a minimum quantity of vegetation cover during (rainy) periods that will take up the nitrogen from the soil that could otherwise cause nitrate pollution of water;
- (3) the establishment of fertilizer plans on a farm-by-farm basis and the keeping of records on fertilizer use;
- (4) the prevention of water pollution from run-off and the downward water movement beyond the reach of crop roots in irrigation systems.

SCHEDULE 5

Regulation 7

PROVISIONS TO BE INCLUDED IN ACTION PROGRAMMES

1. An action programme shall include rules relating to—

- (1) periods when the land application of certain types of fertilizer is prohibited;
- (2) the capacity of storage vessels for livestock manure; this capacity must exceed that required for storage throughout the longest period during which land application in the nitrate vulnerable zone is prohibited, except where it can be demonstrated to the Department that any quantity of manure in excess of the actual storage capacity will be disposed of in a manner which will not cause harm to the environment;
- (3) limitation of the land application of fertilizers, consistent with good agricultural practice and taking into account the characteristics of the nitrate vulnerable zone concerned, in particular –
 - (a) soil conditions, soil type and slope;
 - (b) climatic conditions, rainfall and irrigation;

(a) O.J. No. L334, 24.12.77, p. 29

(b) O.J. No. L335, 22.11.86, p. 44

(c) land use and agricultural practices, including crop rotation systems and to be based on a balance between –

- (i) the foreseeable nitrogen requirements of the crops, and
- (ii) the nitrogen supply to the crops from the soil and from fertilization corresponding to –
the amount of nitrogen present in the soil at the moment when the crop starts to use it to a significant degree (outstanding amounts at the end of winter),
the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil,
additions of nitrogen compounds from livestock manure,
additions of nitrogen compounds from chemical and other fertilizers.

2. These rules shall ensure that, for each farm or livestock unit, the amount of livestock manure applied to the land each year, including by the animals themselves, shall not exceed a specified amount per hectare. The specified amount per hectare shall be the amount of manure containing 170 kg N. However –

- (a) for the first 4 year action programme an amount of manure containing up to 210 kg N may be allowed;
- (b) during and after the first 4 year action programme, different amounts from those referred to above may be fixed. These amounts must be fixed so as not to prejudice the achievement of the Objectives and must be justified on the basis of objective criteria, for example –
long growing seasons,
crops with high nitrogen uptake,
high net precipitation in the vulnerable zone,
soils with exceptionally high denitrification capacity.

3. The amounts referred to in paragraph 2 may be calculated on the basis of animal numbers.

EXPLANATORY NOTE

(This note is not part of the Regulations.)

These Regulations partially implement Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources. They revoke and replace The Protection of Water Against Agricultural Nitrate Pollution Regulations (Northern Ireland) 1996; The Protection of Water Against Agricultural Nitrate Pollution (Amendment) Regulations (Northern Ireland) 1997; and The Protection of Water Against Agricultural Nitrate Pollution (Amendment) Regulations (Northern Ireland) 1999.

In addition, these Regulations designate 7 nitrate vulnerable zones in Northern Ireland, three of which had been designated administratively at an earlier date. The maps identifying the designated zones are available through the DOE and DARD websites by using the link <http://www.ehsni.gov.uk/> and <http://www.dardni.gov.uk/>. They are also available for inspection at the offices of the DOE at Environment & Heritage Service, Calvert House, 23 Castle Place, Belfast BT1 1FY and the DARD offices at Dundonald House, Upper Newtownards Road, Belfast BT4 3SB.

Regulation 3 places the three existing nitrate vulnerable zones on a statutory basis and designates four additional nitrate vulnerable zones. Regulation 3 also imposes notification obligations on the DOE and DARD in relation to these additional designations. In addition, it imposes an obligation on the Departments to review and if necessary revise or add to designations every four years.

Regulation 4 imposes monitoring obligations on the DOE for the purposes of the designation and revision of designations of nitrate vulnerable zones.

Regulation 5 imposes an obligation on the DARD to establish a code of good agricultural practice and if necessary to set up a programme promoting the code.

Regulation 6 imposes an obligation on the DOE and DARD to adopt action programmes in respect of nitrate vulnerable zones by means of Regulations. Regulation 6 furthermore imposes an obligation on the DOE and DARD to establish and implement action programmes in respect of nitrate vulnerable zones designated following a review conducted under regulation 3.

Regulation 7 prescribes the content of Action Programmes.

Regulation 8 imposes obligations on the DOE and DARD to notify the competent authorities in the Republic of Ireland and the Commission in the event that waters identified in Northern Ireland in accordance with the criteria in Schedule 2 are affected by pollution from waters from the Republic of Ireland draining directly or indirectly into them. In addition, the DOE and DARD must organise, in consultation with the authorities in the Republic of Ireland (and where necessary with the Commission) the measures necessary to protect the affected waters.

Regulation 9 creates a right of appeal to the Water Appeals Commission against — any factual error that may have been made in applying the methodology used by the DOE and DARD to identify the nitrate vulnerable zones referred to in Schedule 1 Part 2 of the Regulations. Regulation 9 also provides for the rectification of that area by modification of a nitrate vulnerable zone.

Regulation 10 makes consequential amendments to the Action Programme For Nitrate Vulnerable Zones Regulations (Northern Ireland) 1999. First, it redefines the term “nitrate vulnerable zone”. Second, it permits application of the 210kg standard in NVZs referred to in Schedule 1 Part 2 until 1st June 2007; which is the standard that applies to the NVZs referred to in Schedule 1 Part 1 until 1 June 2003.

Copies of the Code of Good Agricultural Practice for the Prevention of Pollution of Water, referred to in regulation 5 may be obtained free of charge from the Department of Agriculture and Rural Development at any local DARD office or by the following means:

By post from: Countryside Management Branch, Annexe D, Dundonald House,
Upper Newtownards Road, Belfast BT4 3SB;

Website: www.dardni.gov.uk

Copies of Council Directive 91/676/EEC may be obtained from Her Majesty's Stationery Office, 16 Arthur Street, Belfast BT1 4GD.

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