L.N. 343 of 2001

ENVIRONMENT PROTECTION ACT, 2001
(ACT NO. XX OF 2001)

Protection of Waters against Pollution caused by Nitrates from Agricultural Sources Regulations, 2001

BY virtue of the powers conferred by articles 9 and 28 of the Environment Protection Act, 2001, the Minister for the Environment has made the following regulations:-

Citation and commencement.

1. (1) The title of these regulations is Protection of Waters against Pollution caused by Nitrates from Agricultural Sources Regulations, 2001

(2) These regulations shall come into force on such date as the Minister responsible for the environment may by notice in the Gazette appoint, and different dates may be so appointed for the different provisions and different purposes of these regulations.

(3) A notice under sub-regulation (2) of this regulation may make such transitional provisions as appear to the Minister to be necessary or expedient in connection with the provisions thereby brought into force.

Scope.

2. These regulations have the objective of reducing water pollution caused or induced by nitrates from agricultural sources and preventing further such pollution.

Interpretation.

3. For the purpose of these regulations and unless the context otherwise requires:-

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

"competent authority" means the Department for Environment Protection under the guidance of the Director for Environment Protection and such other body or person as the Minister responsible for the environment may by order in the Gazette prescribe and different bodies or persons may be designated as the competent authority for different provisions and different purposes of these regulations;

"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 utilized on land to enhance growth of vegetation; it 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 and waste products excreted by livestock, even in processed form;

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

"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;

"vulnerable zone" means an area of land designated according to subregulation (2) of regulation 4.

Vulnerable zones.

4. (1) The competent authority shall identify waters affected by pollution and waters which could be affected by pollution if action pursuant to regulation 6 is not taken in accordance with the criteria set out in Annex I.

(2) The competent authority shall, within a two-year period following the coming into force of these regulations, designate as a vulnerable zone all known areas of land in Malta which drain into the waters identified according to paragraph 1 and which contribute to pollution.

(3) The competent authority shall review if necessary revise or add to the designation of vulnerable zones as appropriate, and at least every four years, to take into account changes and factors unforeseen at the time of the previous designation.

(4) The competent authority shall be exempt from the obligation to identify specific vulnerable zones, if they establish and apply action programmes referred to in regulation 6 in accordance with these regulations.

Competent authority to provide level of protection.

5. The competent authority shall with the aim of providing for all waters a general level of protection against pollution, within a two-year period following the coming into force of these regulations:

(a) establish a code or codes of good agricultural practice, to be implemented by farmers on a voluntary basis, which should contain provisions covering at least the items mentioned in Annex II A;

(b) set up where necessary a programme, including the provision of training and information for farmers, promoting the application of the code(s) of good agricultural practice.

Action programmes.

6. (1) The competent authority shall within a two-year period following the initial designation referred to in subregulation 4(2) or within one year of each additional designation referred to in subregulation 4(4), for the purpose of realizing the objectives specified in regulation 2, establish action programmes in respect of designated vulnerable zones.

(2) The competent authority shall ensure that an action programme may relate to all vulnerable zones in the territory or, where the competent authority considers it appropriate, different programmes may be established for different vulnerable zones or parts of zones.

(3) Action programmes 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 of the competent authority concerned.

(4) Action programmes shall be implemented within four years of their establishment and shall consist of the following mandatory measures:

(a) the measures in Annex III;

(b) those measures which the competent authority have prescribed in the code(s) of good agricultural practice established in accordance with regulation 5, except those which have been superseded by the measures in Annex III.

(5) The competent authority shall moreover take, in the framework of the action programmes, such additional measures or reinforced actions as it considers necessary if, at the outset or in the light of experience gained in implementing the action programmes, it appears to the competent authority that the measures referred to in subregulation (4) will not be sufficient for achieving the objectives specified in regulation 2. In selecting these measures or actions, the competent authority shall take into account their effectiveness and their cost relative to other possible preventive measures.

(6) The competent authority shall draw up and implement monitoring programmes to assess the effectiveness of action programmes established pursuant to this regulation of these regulations:

Provided that if the competent authority applies regulation 6 of these regulations, the competent authority shall monitor the nitrate content of waters (surface waters and groundwater) at selected measuring points which make it possible to establish the extent of nitrate pollution in the waters from agricultural sources.

(7) The competent authority shall review and if necessary revise the action programmes, including any additional measures taken pursuant to subregulation (5) of these regulations, at least every four years.

7. (1) For the purpose of designating and revising the designation of vulnerable zones, the competent authority shall: Designation of vulnerable zones.

(a) within two years of the coming into force of these regulations, monitor the nitrate concentration in freshwaters over a period of one year:

(i) at surface water sampling stations, and/or at other sampling stations which are representative of surface waters, at least monthly and more frequently during flood periods;

(ii) at sampling stations which are representative of the groundwater aquifers, at regular intervals;

(b) repeat the monitoring programme outlined in (a) at least every four years, except for those sampling stations where the nitrate concentration in all previous samples 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;

(c) review the eutrophic state of their fresh surface waters, estuarial and coastal waters every four years.

(2) The reference methods of measurement set out in Annex IV shall be used.

Monitoring guidelines.

8. The competent authority may publish guidelines for the monitoring referred to in regulations 6 and 7 may be drawn up in accordance with the procedure laid down in regulation 10.

Adaptation of Annexes.

9. The Annexes to these regulations may be adapted to include scientific and technical progress.

Informative report.

10. The competent authority, in respect of the four-year period following the coming into force of these regulations and in respect of each subsequent four-year period, shall publish a report containing the information outlined in Annex V.

Offences under these regulations.

11. Any person shall be guilty of an offence under these regulations if:

(a) he fails to comply with any order lawfully given in terms of any provisions of these regulations; or

(b) he contravenes any restrictions, prohibition or requirement imposed by or under these regulations; or

(c) he conspires or attempt, or aids, or abets, any other person by whatever means, including advertising, counseling or procurement to contravene the provisions of these regulations or to fail to comply with any order lawfully given in terms of any of

the provisions of these regulation, or to contravene any restriction, prohibition or requirement imposed by or under the said regulations.

Penalties.

12. Any person who commits an offence against these regulations shall, on conviction, be liable: Penalties.

(a) on a first conviction to a fine (*multa*) of not less than five hundred liri but not exceeding one thousand liri;

(b) on a second or subsequent conviction, to a fine (*multa*) of not less than one thousand liri, but not exceeding two thousand liri or to imprisonment for a term not exceeding two years, or to both such fine and imprisonment:

Provided that the court shall order any person who has been found guilty of committing an offence against these regulations to pay for the expenses incurred by the public entities and/or other persons acting on their behalf involved in the implementation of these regulations and restitution of the environment as a result of the said offence, the revocation of the permit issued by the Police and the confiscation of the *corpus delicti*.

13. (1) The provisions of article 23 and sub-article (1) of article 30 of the Criminal Code shall, *mutatis mutandis*, apply to proceedings, in respect of offences against these regulations, so however that the disqualification from holding or obtain a licence, permit or authority shall in no case be for less than one year. Applicability of the Criminal Code.

(2) Notwithstanding the provisions of article 370 of the Criminal Code, proceedings for an offence against these regulations shall be taken before the Court of Magistrates (Malta) or the Court of Magistrates (Gozo), as the case may be, and shall be in accordance with the provisions of the Criminal Code regulating the procedure before the said courts as courts of criminal judicature.

(3) Notwithstanding the provisions of the Criminal Code, the Attorney General shall always have a right of appeal to the Court of Criminal Appeal from any judgement given by the Court of Magistrates (Malta) or the Court of Magistrates (Gozo) in respect of proceedings for any offence against these regulations.

14. The Annexes to these regulations are being published in the English language with the English text of these regulations. Language of Annexes.

ANNEX I

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

A. Waters referred to in Article 4 (1) shall be identified making use, *inter alia*, of the following criteria:

1. whether surface freshwaters, in particular those used or intended for the abstraction of drinking water, contain or could contain, if action pursuant to Article 6 is not taken, more than the concentration of nitrates laid down in accordance with the Quality of Surface Water Intended for the Abstraction of Drinking Water Regulations 2001.

2. whether groundwaters contain more than 50 mg/l nitrates or could contain more than 50 mg/l nitrates if action pursuant to Article 6 is not taken;

3. 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 euthropic if action pursuant to Article 6 is not taken.

B. In applying these criteria, the competent authority shall also take account of:

1. the physical and environmental characteristics of the waters and land;

2. the current understanding of the behaviour of nitrogen compounds in the environment (water and soil);

3. the current understanding of the impact of the action taken pursuant to Article 6.

ANNEX II

CODE(S) OF GOOD AGRICULTURAL PRACTICE

A. A code or codes of good agricultural practice with the objective of reducing pollution by nitrates and taking account of conditions in the different regions of the Community should certain provisions covering the following items, in so far as they are relevant:

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.

B. The competent authority may also include in their code(s) of good agricultural practices the following items:

7. 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;

8. 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;

9. the establishment of fertilizer plans on a farm-by-farm basis and the keeping of records on fertilizer use;

10. the prevention of water pollution from run-off and the downward water movement beyond the reach of crop roots in irrigation systems.

ANNEX III

MEASURES TO BE INCLUDED IN ACTION PROGRAMMES AS REFERRED TO IN ARTICLE 6 (4) (a)

1. The measures 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 vulnerable zone is prohibited, except where it can be demonstrated to the competent authority 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 vulnerable zone concerned, in particular:

(a) soil conditions, soil type and slope;

(b) climatic conditions, rainfall and irrigation;

(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 mineralization 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 measures will 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 be the amount of manure containing 170 kg N.

However:

(a) regulation for the first four year action programme the competent authority may allow an amount of manure containing up to 210 kg N;

(b) regulation during and after the first four-year action programme, the competent authority may fix different amounts from those referred to above. These amounts must be fixed so as not to prejudice the achievement of the objectives specified in Article 2 and must be justified on the basis of objectives 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 competent authority may calculate the amounts referred to in paragraph 2 on the basis of animal numbers.

ANNEX IV

REFERENCE METHODS OF MEASUREMENT

Chemical fertilizer

Nitrogen compounds shall be measured using a method which is acceptable to the competent authority.

Freshwaters, coastal waters and marine waters

Nitrate concentration shall be measured in accordance with the exchange of information on the quality of surface fresh water regulations 2001.

ANNEX V

INFORMATION TO BE CONTAINED IN REPORTS TO IN ARTICLE 10

1. A statement of the preventive action taken pursuant to Article 5.

2. A map showing the following:

(a) waters identified in accordance with Article 4 (1) and Annex I indicating for each water which of the criteria in Annex I was used for the purpose of identification;

(b) the location of the designed vulnerable zones, distinguishing between existing zones and zones designated since the previous report.

3. A summary of the monitoring results obtained pursuant to Article 7, including a statement of the considerations which led to the designation of each vulnerable zone and to any revision of or addition to designations of vulnerable zones.

4. A summary of the action programmes drawn up pursuant to Article 6 and, in particular:

(a) the measures required by Article 6 (4) (a) and (b);

(b) the information required by Annex III (4);

(c) any additional measures or reinforced actions taken pursuant to Article 6 (5);

(d) a summary of the results of the monitoring programmes implemented pursuant to Article 6 (6);

(e) the assumptions made by the competent authority about the likely timescale within which the waters identified in accordance with Article 4 (1) are expected to respond to the measure in the action programme, along with an indication of the level of uncertainty incorporated in these assumptions.