

REPRÉSENTATION PERMANENTE  
DE L'IRLANDE  
AUPRÈS DE  
L'UNION EUROPÉENNE



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14 June 1996

Director-General,  
DGXI - Environment, Nuclear Safety and Civil Protection,  
Commission of the European Communities,  
Ave de Beaulieu, 5  
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Dear Director General,

I have been asked by my authorities to refer to previous correspondence concerning Article 7 of Council Directive 76/464/EEC on pollution caused by certain dangerous substances discharged into the aquatic environment and also Article 5 of Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464/EEC.

My authorities wish to point out that the implications of the Articles concerned for Member States will vary depending on:

- (a) the quality status of their surface waters, in particular, whether they are subject to pollution by the substances within List II of Directive 76/464/EEC, and
- (b) whether they have significant sources, other than discharges subject to Community limit values or national emission standards, of the substances to which specific reference is made in Annex II of Directive 86/280/EEC that are causing pollution or entail a risk of pollution and so require the drawing up of specific programmes to eliminate or avoid such pollution.

The situation in Ireland in respect of the foregoing considerations is outlined in the following paragraphs.

Status of Irish Waters/Directive 76/464/EEC

My authorities have already supplied to the Commission services copies of the recently published Environmental Protection Agency State of the Environment in Ireland report which deals comprehensively with all environmental media, the pressures at work, current conditions and trends, including the situation in relation to waters.

The report indicates that pollution of Irish inland waters is caused mainly by incorrect disposal of farmyard slurries, sewage and industrial effluents containing organic matter which deplete the oxygen in water. The particular problem of eutrophication is attributed to phosphate inputs. The quality status of surface waters has been assessed as follows:-

### Rivers and Streams

- ◆ The bulk (71%) of river and stream channel surveyed (13,200km) was found to be in an unpolluted condition.
- ◆ 17% of channel was classed as slightly polluted and 11% as moderately polluted.
- ◆ 0.6% of channel was classed as seriously polluted.
- ◆ As regards trends, the latest data show a gradual reduction in the extent of serious pollution (now virtually eliminated) and increasing levels of slight and, to a lesser extent, moderate pollution.
- ◆ The abatement of serious pollution is attributed to the installation of new or improved waste treatment facilities for point source discharges, in particular sewage, and, in some instances, to the cessation of seriously polluting industrial activities.
- ◆ The upward trend in the incidence of slight and moderate pollution is largely due to eutrophication by point and diffuse source discharges. In the case of the latter, recent studies strongly suggest that loss of phosphorus from agriculture makes a significant contribution to the eutrophication problem.

### Lakes

- ◆ Of the 135 lakes for which recent data were available:-
  - 104 (77%) were assigned a trophic status (oligotrophic or mesotrophic) consistent with a low probability of pollution.
  - 7 (5%) were classified as moderately eutrophic, indicating a moderate level of artificial enrichment; the adverse effects on beneficial uses of these lakes are not likely to be of great significance.
  - 24 lakes (18%) were classified as strongly eutrophic (8.1%), highly eutrophic (4.4%) or hypereutrophic (5.2%) indicating a likelihood of impairment of their beneficial uses.
- ◆ The report indicates that the overall national position regarding lake water quality is likely to be more favourable than the above findings in respect of a limited number of lakes, i.e. 135 of the most threatened lakes out of a total of 4,000 in the country as a whole.
- ◆ The principal sources of nutrients resulting in the enriched state of lakes so affected are non-point discharges of phosphorus from agriculture.

### Estuarine and Coastal Waters

- ◆ Results for 26 tidal waters indicate that serious pollution is of very limited occurrence. While a degree of deoxygenation is recorded in some estuarine waters, it is not such as to impede the passage of migratory fish species.
- ◆ Macro-algae deposits have caused problems in Dublin Bay.

- ◆ The general overall trend in relation to concentrations of heavy metals (mercury, cadmium, copper, lead and zinc) in mussels and oysters from 26 coastal and estuarine locations, in fin fish landed from all coasts, and in water and sediments from 9 estuaries is one of stability, or in the case of historical contamination, of reduction over time.
- ◆ The degree of organochlorine contamination is low in all estuaries and coastal areas sampled and is very low in the European context.
- ◆ In 1994 all 108 coastal bathing area sampling points complied with the mandatory standards of Directive 76/160/EEC and 89.8% points met the guideline values.

Apart from phosphorus which is responsible for the eutrophication of surface freshwaters, the State of the Environment report (and previous environmental assessments) has established that pollution by List II substances is not a feature of Irish waters. In these circumstances, formal programmes to reduce pollution by such substances (Article 7 of Directive 76/464/EEC) are not considered to be warranted under the conditions obtaining in Ireland at present.

My authorities wish to point out that they are pursuing measures aimed at the prevention of pollution by List II substances generally. In this regard, the Commission services will already be familiar with the system of prior authorisation for discharges containing such substances, i.e. under the Local Government (Water Pollution) Acts 1977 and 1990 and the Environmental Protection Agency Act, 1992. The emission limits attached as conditions to these authorisations are determined, as appropriate, by local authorities or the EPA for the purpose of maintaining high standards of water quality. Limits reflect local conditions in the receiving waters concerned and are determined having regard to relevant water quality objectives as contained in

- ◆ statutorily made water quality management plans,
- ◆ Memorandum No. 1 of the Technical Committee on Effluent and Water Quality Standards,
- ◆ Irish regulations giving effect to quality objectives set in EU Directives, e.g. freshwater fish, shellfish, bathing waters.

Discharges from scheduled activities coming within the integrated pollution control licencing system under the 1992 EPA Act are subject to the additional requirement whereby the Agency may only grant a licence if it is satisfied that, inter alia, best available technology not entailing excessive costs will be used to prevent, or eliminate, or where that is not practicable, to limit, abate or reduce the emission from the activity concerned, and that no significant environmental pollution results from the emission.

My authorities wish to further develop and refine this preventive/precautionary approach and, accordingly, it is their intention to prescribe water quality objectives for those List II substances of particular relevance under Irish conditions. The Environmental Protection Agency is assisting in this process and will shortly complete a discussion document putting forward recommended quality objectives for a range of List II substances. The document will be finalised by the Agency taking account of submissions and observations received from the

public, environmental groups, Government Departments, State agencies, etc. It will then be presented to the Minister for the Environment who will determine the quality objectives to be prescribed. The intention is to set standards initially for phosphorus and selected metals and subsequently to review the need for statutory objectives for other List II substances taking account of their relevance in the Irish context.

#### Position on Phosphorus Inputs to Waters

As already indicated, national overviews of water quality, including the recent State of the Environment report, have identified eutrophication due to phosphorus(P) inputs as the major threat to the quality of Irish rivers and lakes. While discharges from certain industries and from urban waste water treatment plants contribute to P loadings, the main inputs involved come from agriculture, in particular, diffuse sources associated with the use of chemical fertilisers and the landspreading of slurries and other organic farm wastes.

Point effluent discharges containing P are subject to the prior authorisation systems (already referred to) under the Water Pollution Acts 1977 and 1990 or, as appropriate, the Environmental Protection Agency Act, 1992, with emission limits determined in the manner previously outlined. As regards urban waste water, a major programme of investment in treatment facilities designed to eliminate pollution of rivers and lakes is being implemented in Ireland. This will include provision for phosphorus reduction facilities in respect of sensitive areas designated under Directive 91/271/EEC and in respect of other waters where local circumstances show this to be desirable.

The present work of the EPA on producing a discussion document on quality objectives for List II substances, leading to the prescribing of standards by the Minister for the Environment for a number of List II substances, including phosphorus, will help to further refine the present systems of prior authorisations for discharges to waters. These standards will also prove useful in assessing the overall effectiveness of measures to reduced P inputs to waters from all sources and to make adjustments, as appropriate, to control strategies. However, for practical reasons it would not be feasible to apply these standards in the manner which appears to have been envisaged in Article 7.2 so as to operate a prior authorisation procedure for diffuse sources of P discharges from agriculture (or other sectors). It is considered that Directive 76/464/EEC is deficient in its approach to diffuse sources of pollution and that there would be merit in reviewing its provisions in this regard. In the case of diffuse agricultural sources of pollution, the Union has already recognised the inadequacy of this Directive as a management tool/control mechanism and has taken steps through the adoption of specific legislation (i.e. the nitrates Directive) so as to deal in a practical and effective way with such sources of pollution; there may be a case for adoption of a similar approach to deal with P inputs from agriculture.

My authorities already have an extensive programme of measures in place to reduce pollution due to P inputs from agriculture. Details of the programme were notified in their letters of 19 and 21 September, 1995 concerning respectively complaints Nos. 5083/94 and 95/4018. These measures are backed up by research to increase the understanding of the causes and effects of eutrophication and the development of strategies to integrate environmental considerations into agricultural policy; current work on the latter is being pursued in the context of the finalisation of a national strategy on sustainable development. The efforts to control P inputs will gain further impetus from the preparation at the Minister's request of a comprehensive and integrated strategy document on the eutrophication of lakes. The strategy

will address all sources of P, identify additional pollution reduction measures, including timescales, and provide a management tool for local authorities in their protection of waters.

The statutory powers available to local authorities to deal with P losses from agriculture have been strengthened significantly by the recent enactment of an amendment to the Water Pollution Acts. The new powers will enable authorities to require farmers to prepare and obtain approval to nutrient management plans where this is warranted in the light of local water quality conditions. The objectives of these plans will be to integrate the use of organic farm wastes and chemical fertilisers and to determine appropriate nutrient application rates on a farm by farm basis taking account of environmental protection considerations, crop requirements and nutrients already available in the soil. Details of the new provision are enclosed.

The risk of pollution due to the P content of organic farm wastes is taken into account and dealt with as appropriate in the code of good agricultural practice, prepared by my authorities in accordance with the nitrates Directive (91/676/EEC), which is being forwarded to the Commission services separately. Observance of the code's recommendations on the storage and management of farm wastes will help reduce eutrophication caused by P. My authorities intend to augment these initiatives by issuing further advice on the control of phosphorus pollution from agricultural sources. As part of the preparatory process in this regard, existing recommendations on P application rates for crops, including soil P values above which there is believed to be no crop response are being reviewed taking account of the current state of knowledge of the fate of P in soil, leaching rates, etc., and the degree to which Irish waters are sensitive to increases in P loadings.

From 3 September, 1996, proposed intensive pig and poultry rearing operations of a size specified in the First Schedule of the Environmental Protection Agency Act, 1992, will be subject to integrated pollution control licensing. The EPA is at present finalising BATNEEC guidance notes in this regard which, inter alia, will take account of possible P losses from such activities and their potential to cause water pollution.

In many cases the programme of measures outlined to deal with P losses to waters are a direct response to farming practices encouraged by the former emphasis of the Common Agricultural Policy (CAP) on production which in Ireland has resulted in an intensification of agriculture, the increased use of fertilisers, leading to the build up of soil nutrient levels, the generation of greater volumes of farm wastes, etc. The effectiveness of the measures being pursued by my authorities and the timescale for the restoration of waters affected by eutrophication will be influenced by developments at Community level, particularly in relation to the nature and future direction of the CAP.

#### Directive 86/280/EEC and Daughter Directives

The substances covered by these Directives in respect of which specific programmes are required to avoid or eliminate pollution from significant sources other than discharges subject to Community limit values or national emission standards are:-

#### Directive 86/280/EEC

- Carbon tetrachloride, DDT and pentachlorophenol.

Directive 88/347/EEC

- Aldrin, dieldrin, endrin and isodrin; hexachlorobenzene, hexachlorobutadiene and chloroform.

Directive 90/415/EEC

- EDC, perchloroethylene, trichloroethylene and trichlorobenzene.

My authorities have previously notified the Commission services of the Regulations made in respect of each of the foregoing Directives which transpose provisions concerning the quality standards applying to effluent discharges containing the substances concerned.

Investigations instigated by my authorities, including assessments carried out by local authorities in their functional areas, which have been repeated at intervals, have established the following in respect of each of the substances concerned:-

- **Carbon tetrachloride:** Investigations of existing industries have found that no industrial plants produce, process, or use, this substance. Certain laboratories use small quantities of carbon tetrachloride but wastes arising are disposed of to specialist hazardous waste disposal firms and are not discharged to waters or sewers.

Council Regulation 3093/94 of 15 December 1994 banned within the EU the production and importation of carbon tetrachloride with effect from 1 January 1995.

- **DDT**  
There is no production, processing of or use of DDT in industrial plants in Ireland and its use has been prohibited since 1988.
- **Pentachlorophenol**  
There is no production or processing of this substance in Ireland. A small number of wood preservative companies formerly used the substance but this has been discontinued with the exception of one company. There is no discharge to waters or sewers from the company concerned. The operation is not considered to be a significant source of pentachlorophenol.
- **Aldrin, Dieldrin, Endrin and Isodrin**  
Examination of agricultural suppliers found no evidence of the formulation or selling of these products. Endrin has never been marketed in Ireland, nor is there any authorisation to do so. Use of the other plant protection products has been prohibited in Ireland since 1988. The situation in relation to industry has also been checked and it has been established that there is no production, processing or use of these substances.
- **Hexachlorobenzene (HCB) and Hexachlorobutadiene (HCBd)**  
No production, processing or use of these substance occurs in Irish industry.
- **Chloroform (CHCl<sub>3</sub>)**  
Surveys of industrial premises have identified a number of users of CHCl<sub>3</sub>, (11 in total). Two of these involve discharges to waters/sewers and are subject to national emission

standards prescribed in Regulations (S.I. No. 348 of 1993) giving effect to Directive 88/347/EEC. There are no discharges containing chloroform from the other 9 premises; in these cases the waste is shipped abroad for processing under the transfrontier shipment of waste Regulations.

The volume of chloroform used in laboratories is typically less than 20 litres per annum. Practice is to store, collect and recover the chloroform or, where waste arises, to use specialist waste firms under the appropriate hazardous waste Regulations.

- **EDC**

No production or processing of this substance by industry has been identified. Small quantities (typically 2.0 l/annum) were identified as used for laboratory work in certain locations and one company used 120 litres per annum. There are no discharges to the aquatic environment from these laboratories or the company concerned.

- **Perchloroethylene (PER)**

No production of PER has been identified in investigations of industrial plants. Several plants, mainly metal degreasing operations, handle PER but there are no discharges to waters/sewers. The waste arising is either retained or recovered and the residue disposed of in accordance with the hazardous waste regulations.

PER is used in the laundering and dry cleaning sector. Solvent consumption in this industry in Ireland has been declining and dropped from 2,400 tonnes in 1976 to 500 tonnes in 1990.

The nature of the dry cleaning process in Ireland is such that PER is normally recycled in a continuous distillation process. The solid residual waste from the cleaning process is disposed of in accordance with waste regulations without risk to waters.

Amounts of PER used at different locations vary according to the size of the trade but in all cases quantities involved are small. For example, a survey in County Wexford in 1993 showed that 9800/kg/year of the substance was used by 12 premises. There were no discharges to waters or sewers from these premises. Investigations have established that this absence of discharges is the norm in dry cleaning operations; only two cases of discharge have been identified. The quantity of PER involved is small - 0.5 kg per premises per year discharged to sewers.

- **Trichloroethylene (TRI)**

No production or processing of TRI was identified in surveys of industrial plant. A number of industrial plant use TRI as a cleaning, or metal degreasing agent or laboratory reagent. The substance is also used by some dry cleaners. Usage amounts vary but are quite low and disposal is by specialist waste disposal firms under Toxic and Dangerous Waste and Hazardous Waste Regulations without risk to waters. No discharges of TRI have been identified.

- **Trichlorobenzene (TCB)**

No production, or processing of this solvent in industrial plant has been identified. One company handles the substance (2,300 litres per year) and disposes of waste in

accordance with hazardous waste regulations. There are no discharges to waters/sewers from the company concerned.

In view of the situation outlined and the current status of waters as most recently presented in the EPA's State of the Environment report, my authorities consider that there are at present no significant sources in Ireland of substances to which specific reference is made in Annex II to Directive 86/280/EEC or subsequent 'daughter' Directives which would warrant programmes to avoid or eliminate pollution. The position in relation to the production, processing and use of the substances concerned will continue to be reviewed periodically and the necessary programmes will be established should the findings of these reviews so warrant.

My authorities trust that the foregoing information will provide a satisfactory account and help to clarify the present situation on the implementation of Directives 76/464/EEC and 86/280/EEC, including the position regarding programmes under Articles 7 and 5 respectively of these Directives.

Yours sincerely,



Environment Attache.