

COMMISSION OF THE EUROPEAN COMMUNITIES

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Brussels, 18 November 1991

Proposal for a

COUNCIL DIRECTIVE

on procedures for harmonizing the programmes for the reduction
and eventual elimination of pollution caused by waste from
the titanium dioxide industry

(presented by the Commission)

EXPLANATORY MEMORANDUM

1. Introduction

On 18 April 1983 the Commission, in conformity with Council Directive 78/176/EEC of 20 February 1978 on waste from the titanium dioxide industry, and in particular Article 9 thereof,¹ presented to the Council a proposal for a Directive based on Articles 100 and 235 of the EEC Treaty designed to harmonize the programmes for the reduction and eventual elimination of pollution caused by waste from the titanium dioxide industry and to improve the conditions of competition in that sector.²

The proposal was amended in 1984 pursuant to the second paragraph of Article 149 of the EEC Treaty and was then discussed on several occasions by the Council.³ Following the entry into force of the Single European Act, the Commission changed the legal basis of its proposal to Article 100a.

Nevertheless, at its meeting of 24 and 25 November 1988, the Council agreed a common position basing the proposed Directive on Article 130s of the EEC Treaty. Although Parliament, when consulted by the Council on this change, was of the opinion that the legal basis proposed by the Commission was appropriate, the Council adopted the Directive in question on the basis of Article 130s.

The Commission, considering that Article 100a was the appropriate legal basis for Directive 89/428/EEC,⁴ instituted proceedings for annulment before the Court of Justice on 28 September 1989 pursuant to the first paragraph of Article 173 of the EEC Treaty.

In its judgment delivered on 11 June 1991, the Court found that Article 100a of the EEC Treaty was the legal basis which should have been chosen, and annulled Directive 89/428/EEC on the grounds that it lacked a proper legal basis⁵

The Court's decision has important legal effects, since the national measures transposing the annulled Directive 89/428/EEC have lost their foundation in Community law.

It is worth noting in this respect that Member States should, pursuant to Article 12 of Directive 89/428/EEC, have brought the necessary provisions into force to comply with this Directive at the latest by 31 December 1989 and, furthermore, that transposal has already been achieved to a large extent in those Member States that have discharged their obligations in this field.

Since, apart from the legal basis and the provisions on derogations from application of the Directive, the other provisions serve the intended objective, which is to eliminate distortions of competition and to protect the environment, the Commission takes the view that no Member State need cancel its national measures transposing the Directive.

1 OJ No L 54, 25.2.1978, p. 19.

2 OJ No C 138, 26.5.1983, p. 5.

3 OJ No C 167, 27.6.1984, p. 9.

4 OJ No L 201, 14.7.1989, p. 56.

5 Judgment of 11.6.1991 in Case C-300/89, Commission-European Parliament v Council (not yet published).

Finally, Article 176 of the EEC Treaty requires the institution whose act has been declared void to take the necessary measures to comply with the judgment.

To this end, the Commission hereby sends to the Council and Parliament a new proposal for a Directive based on Article 100a of the EEC Treaty.

In order to fill rapidly the temporary legal void created by the abovementioned annulment decision, the Commission considers it appropriate to include in its new proposal provisions ensuring continuity in the achievement of the objectives of the annulled Directive 89/428/EEC. This does not, of course, apply to the legal basis or to the provisions of the Directive allowing derogations to the implementation timetable, as this would be contrary to the requirements of Article 100a of the EEC Treaty.

Consequently, the Commission calls on the other institutions to take all appropriate measures to expedite the adoption procedure.

2. Legal basis

This proposal for a Directive lays down the procedures for harmonizing the programmes for the reduction and eventual elimination of pollution caused by waste from existing industrial establishments in the titanium dioxide industry, pursuant to Article 9 of Council Directive 78/176/EEC of 20 February 1978 on waste from the titanium dioxide industry.

Although national programmes to reduce pollution in this field have been introduced for environmental protection reasons, they need to be harmonized in order to eliminate distortions of competition resulting from differences between the programmes.

The existence and/or maintenance of different national rules applicable to competing industrial establishments in the titanium dioxide sector results in major economic differences regarding in particular the investments which the industry is required to make, which are reflected in the cost of the finished product.

Differences also result in the level of environmental protection in the individual Member States.

For all these reasons, it is necessary to harmonize the programmes.

Given this objective, and in conformity with the grounds stated by the Court in its abovementioned annulment decision, this proposal for a Directive contributes to completion of the internal market and therefore falls within the scope of Article 100a.

Consequently, and in implementation of the Court's judgment of 11 June 1991 in Case C-300/89, the legal basis for this proposal for a Directive is Article 100a of the EEC Treaty.

3. Content of the proposal

The proposal retains the technical provisions (prohibition of dumping and discharge, limit values) of the annulled Directive 89/428/EEC with the object of ensuring continuity in the achievement of the environmental protection objectives adopted by the Council in this field in 1989.

The Commission considers this approach to be appropriate in view, firstly, of the lengthy political debate in the Community which preceded adoption of Directive 89/428/EEC now declared void and, secondly, of important financial aspects concerning the investments already made by the industrial establishments concerned in technology for treating titanium dioxide waste in order to comply with the objectives and implementation timetable of the annulled Directive 89/428/EEC.

In addition, the current temporary legal void created by the annulment decision is likely to have adverse effects on the environment and on the conditions of competition in the titanium dioxide industry; it must therefore be speedily rectified by the adoption of a new directive restoring the conditions created in 1989.

Since the implementation calendar established by the annulled Directive 89/428/EEC has largely been overtaken, this proposal sets new target dates in the near future.

The proposed timetable is based on the following considerations:

- the main provisions of Directive 89/428/EEC now declared void should have been and in fact were implemented between 31 December 1989 and 30 June 1990 in certain Member States (which should therefore not be placed at a disadvantage compared with the other Member States);
- Community legal certainty in the field must be reestablished as quickly as possible.

The timetables for reducing discharges to the aquatic environment and to the air differ from one another.

A. Discharges to the aquatic environment

The timetable contained in Articles 3 to 6 of the proposal specifies the following dates:

- 31 January 1993 (31.12.1989 in Directive 89/428/EEC now declared void)
 1. Prohibition of the dumping of waste (discharge to the aquatic environment from ships or aircraft of any type) (Article 3).

2. Prohibition of discharges (other than dumping) to the aquatic environment of solid waste and strong acid waste from existing industrial establishments using the sulphate process or the chloride process (Article 4a-b).
 3. Prohibition of discharges (other than dumping) to the aquatic environment of treatment waste from existing industrial establishments using the sulphate process (Article 4a).
 4. Effective date for the reduction of weak acid waste, treatment waste and neutralized waste from existing industrial establishments using the chloride process to certain values of total chloride per tonne of titanium dioxide produced (Article 5b).
 5. Final date for communication to the Commission by Member States of their programme for reducing weak acid waste and neutralized waste from existing industrial establishments using the sulphate process to certain values of total sulphate per tonne of titanium dioxide produced, where these States encounter major technical and economic difficulties (Article 6).
- 31 December 1993 (31.12.1992 in Directive 89/428/EEC now declared void)

Target date for reducing weak acid waste and neutralized waste from existing industrial establishments using the sulphate process to certain values of total sulphate per tonne of titanium dioxide produced (Article 5a).

- 31 December 1994 (idem Directive 89/428/EEC now declared void)

Expiry of the derogation from the target date for the reduction of weak acid waste and neutralized waste to certain values of total sulphate per tonne of titanium dioxide produced (sulphate process only) (Article 6).

B. Discharges to the air

The timetable results from Article 8 of the proposal:

- 31 January 1993 (31.12.1989 in Directive 89/428/EEC now declared void)

Target date for the reduction to certain values of discharges of dust and chlorine from existing establishments using the chloride process (Article 8b i-ii).

- 31 December 1993 (31.12.1990 in Directive 89/428/EEC now declared void)

Target date for the reduction to certain values of discharges of dust from existing establishments using the sulphate process (Article 8a i).

- 1 January 1995 (idem in Directive 89/428/EEC now declared void)

Target date for the reduction to certain values of discharges of SO₂ arising from digestion and calcination steps in the manufacture of titanium dioxide from existing establishments using the sulphate process (Article 8a ii).

The scope for Member States to postpone application of certain provisions, in particular those relating to discharges to the aquatic environment provided for by Articles 5 and 7(2) of the annulled Directive 89/428/EEC have not been maintained in the proposal, as they no longer have any justification.

These Articles enabled Member States to postpone until 31 December 1992 at the latest the implementation date laid down in Articles 3 and 6(b) of Directive 89/428/EEC and that laid down in Article 4 (for which an additional six months' period of grace could be granted by the Commission), provided that the Member States concerned submitted a corresponding effective programme of reduction to the Commission by 31 December 1989 at the latest.

As no Member State had availed itself of this scope for derogation within the periods laid down in the former Directive and since 10 and 11 Member States respectively had stated that they did not wish to use this derogation, there is no longer any cause to include such provisions.

By contrast, the derogation provided for in Article 7(1) of Directive 89/428/EEC is maintained in Article 6 of this proposal.

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THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100a thereof,

Having regard to the proposal from the Commission¹,

In cooperation with the European Parliament²,

Having regard to the opinion of the Economic and Social Committee³,

Whereas Council Directive 89/428/EEC of 21 June 1989 on procedures for harmonizing the programmes for the reduction and eventual elimination of pollution caused by waste from the titanium dioxide industry⁴ was annulled by the Court of Justice in its judgment of 11 June 1991 on the grounds that it lacked an appropriate legal basis;⁵

Whereas the legal void caused by the annulment of the Directive may have adverse effects on the environment and on conditions of competition in the titanium dioxide production sector; whereas it is necessary to restore the material situation created by the annulled Directive 89/428/EEC;

Whereas the objective of this Directive is to approximate national rules relating to titanium dioxide production conditions in order to eliminate the existing distortions of competition between producers in the industry and to ensure a high level of environmental protection;

Whereas Council Directive 78/176/EEC of 20 February 1978 on waste from the titanium dioxide industry⁶, as last amended by Directive 83/29/EEC⁷, and in particular Article 9 thereof, requires the Member States to draw up programmes for the progressive reduction and eventual elimination of pollution caused by waste from industrial establishments in existence on 20 February 1978;

Whereas these programmes set general targets for the reduction of pollution caused by liquid, solid and gaseous wastes to be achieved by 1 July 1987; whereas these programmes were to be submitted to the Commission so that it could present suitable proposals to the Council for their harmonization with regard to the reduction and eventual elimination of this pollution and the improvement of the conditions of competition in the titanium dioxide industry;

1 OJ No

2 OJ No

3 OJ No

4 OJ No L 201, 14.7.1989, p. 56.

5 Judgment of 11 June 1991, Case C-300/89, Commission v. Council, not yet published.

6 OJ No L 54, 25.2.1978, p. 19.

7 OJ No L 32, 3.2.1983, p. 28.

Whereas, in order to protect the aquatic environment, dumping of waste and discharges of certain wastes, in particular of solid and strong acid wastes, should be prohibited and discharges of other wastes, in particular of weak acid and neutralized wastes, should be progressively reduced;

Whereas existing industrial establishments should employ the appropriate systems for treating the wastes in order to meet the requisite targets by the set dates;

Whereas installation of those systems can give rise to major technico-economic difficulties in the case of weak acid waste and neutralized waste from certain establishments; whereas Member States should therefore be able to defer application of these provisions, on condition that a programme of effective reduction of pollution is drawn up and submitted to the Commission; whereas where Member States experience such difficulties, the Commission should be able to extend the relevant time limits;

Whereas, in respect of discharges of certain wastes, Member States should be able to make use of quality objectives in such a way that the results are equivalent in all respects to those obtained through limit values; whereas such equivalence should be demonstrated in a programme to be presented to the Commission;

Whereas, without prejudice to the obligations placed on Member States by Council Directive 80/779/EEC of 15 July 1980 on air quality limit values and guide values for sulphur dioxide and suspended particulates⁸, as last amended by Directive 89/427/EEC⁹, and Council Directive 84/360/EEC of 28 June 1984 on combating air pollution from industrial plants¹⁰, it is expedient to protect the quality of the air by fixing appropriate emission standards in respect of gaseous discharges from the titanium dioxide industry;

Whereas, in order to verify the effective application of the measures, Member States should undertake monitoring in relation to the actual production of each establishment;

Whereas all waste from the titanium dioxide industry should be avoided or re-used where technically and economically feasible and whereas such waste should be re-used or disposed of without endangering human health or the environment,

HAS ADOPTED THIS DIRECTIVE:

Article 1

This Directive lays down, as required by Article 9(3) of Directive 78/176/EEC, procedures for harmonizing the programmes for the reduction and eventual elimination of pollution from existing industrial establishments and is intended to improve the conditions of competition in the titanium dioxide industry.

8 OJ No L 229, 30.8.1980, p. 30.

9 OJ No L 201, 14.7.1989, p. 53.

10 OJ No L 188, 16.7.1984, p. 20.

Article 2

1. For the purpose of this Directive:

a) where the sulphate process is used:

- "solid waste" shall mean:

- insoluble ore residues not broken down by sulphuric acid during the manufacturing process,
- copperas, i.e. crystalline ferrous sulphate ($\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$),

- "strong acid waste" shall mean:

the mother liquors arising from the filtration phase following hydrolysis of the titanyl sulphate solution. If these mother liquors are associated with weak acid wastes which overall contain more than 0.5% free sulphuric acid and various heavy metals¹¹, the liquors and waste taken together shall be considered strong acid waste,

- "treatment waste" shall mean:

filtration salts, sludges and liquid waste arising from the treatment (concentration or neutralization) of strong acid waste and containing various heavy metals, but not including neutralized and filtered or decanted waste containing only traces of heavy metals and which, before any dilution, has a pH value above 5.5,

- "weak acid waste" shall mean :

wash waters, cooling waters, condensates and other sludges and liquid wastes, other than those included in the above definitions, containing 0.5% or less free sulphuric acid,

- "neutralized waste" shall mean:

any liquid which has a pH value over 5.5, contains only traces of heavy metals, and is obtained directly by filtration or decantation from strong or weak acid waste after its treatment to reduce its acidity and its heavy metals' content,

- "dust" shall mean:

all kinds of dust from production plants and in particular ore and pigment dust;

- " SO_x " shall mean:

gaseous sulphur dioxide and trioxide released in the various stages of the manufacturing and internal waste treatment processes, including acid droplets;

¹¹ Strong acid waste which has been diluted until it contains 0.5% or less free sulphuric acid shall also be covered by this definition.

b) where the chloride process is used:

- "solid waste" shall mean:

- insoluble ore residues not broken down by the chlorine during the manufacturing process,

- metal chlorides and metal hydroxides (filtration substances) arising in solid form from the manufacture of titanium tetrachloride,

- coke residues arising from the manufacture of titanium tetrachloride,

- "strong acid waste" shall mean:

waste containing more than 0.5% free hydrochloric acid and various heavy metals¹²,

- "treatment waste" shall mean:

filtration salts, sludges and liquid waste arising from the treatment (concentration or neutralization) of strong acid waste and containing various heavy metals, but not including neutralized and filtered or decanted waste containing only traces of heavy metals and which, before any dilution, has a pH value over 5.5,

- "weak acid waste" shall mean:

wash waters, cooling waters, condensated and other sludges and liquid wastes, other than those included in the above definitions, containing 0.5% or less free hydrochloric acid,

- "neutralized waste" shall mean:

any liquid which has a pH value over 5.5, contains only traces of heavy metals, and is obtained directly by filtration or decantation from strong or weak acid waste after its treatment to reduce its acidity and its heavy metals' content;

- "dust" shall mean:

all kinds of dust from production plants and in particular ore, pigment and coke dust,

- "chlorine" shall mean:

gaseous chlorine released in the various stages of the manufacturing process;

c) where the sulphate process or the chlorine process is used:

- "dumping" shall mean:

¹² Strong acid waste which has been diluted until it contains 0.5% or less free sulphuric acid shall also be covered by this definition.

any deliberate disposal into inland surface waters, internal coastal waters, territorial waters or the high seas of substances and materials by or from ships or aircraft¹³.

2. The terms defined in Directive 78/176/EEC shall have the same meaning for the purposes of this Directive.

Article 3

The dumping of any solid waste, strong acid waste, treatment waste, weak acid waste, or neutralized waste, as referred to in Article 2 shall be prohibited with effect from 31 January 1993.

Article 4

Member States shall take the necessary measures to ensure that discharges of waste into inland surface waters, internal coastal waters, territorial waters and the high sea are prohibited:

- a) as regards solid waste, strong acid waste and treatment waste from existing industrial establishments using the sulphate process:
- by 31 January 1993 in all the abovementioned waters;
- b) as regards solid waste and strong acid waste from existing industrial establishments using the chloride process:
- by 31 January 1993 in all the abovementioned waters.

Article 5

Member States shall take the necessary measures to ensure that discharges of waste are reduced in accordance with the following provisions:

- a) from existing industrial establishments using the sulphate process:
- weak acid waste and neutralized waste shall be reduced by 31 December 1993 in all waters to a value of not more than 800 kg of total sulphate per tonne of titanium dioxide produced (i.e. corresponding to the SO₄ ions contained in the free sulphuric acid and in the metallic sulphates);
- b) from existing industrial establishments using the chloride process:
- weak acid waste, treatment waste, and neutralized waste shall be reduced by 31 January 1993 in all waters to the following values of total chloride per tonne of titanium dioxide produced (i.e. corresponding to the Cl ions contained in the free hydrochloric acid and in the metallic chlorides):
- 130 kg using neutral rutile,
 - 228 kg using synthetic rutile,
 - 450 kg using slag.

¹³ "Ships and aircraft" shall mean waterborne vessels and airborne craft of any type whatsoever. This expression shall include air-cushion craft, floating craft, whether self-propelled or not and fixed or floating platforms.

In the case of an establishment using more than one type of ore, the values shall apply in proportion to the quantity of these ores used.

Article 6

Except where inland surface waters are concerned, Member States may defer the date of application referred to in point (a) of Article 5 until 31 December 1994 at the latest if serious technico-economic difficulties so require and provided that a programme of effective reduction of discharges of such waste is submitted to the Commission by 31 January 1993. Such a programme shall enable the following limit value per tonne of titanium dioxide produced to be reached by the date shown:

- weak acid waste and neutralized waste : 800 kg - 31 December 1994.

Three months at the latest following adoption of this Directive the Commission shall be informed of such cases, which shall be the subject of consultation with the Commission. The Commission shall inform the other Member States.

Article 7

1. As regards the requirements of Article 5, Member States may choose to make use of quality objectives coupled with appropriate limit values applied in such a way that the effects in terms of protecting the environment and avoiding distortions of competition are equivalent to that of the limit values laid down in this Directive.
2. If a Member States chooses to make use of quality objectives, it shall present to the Commission a programme¹⁴, demonstrating that the measures achieve an effect, which, in terms of protecting the environment and avoiding distortion of competition, is equivalent to that of the limit values by the dates when these limit values are applied in accordance with Article 5.

This programme shall be submitted to the Commission at least six months before the Member State proposes to apply the quality objectives.

This programme shall be assessed by the Commission in accordance with the procedures laid down in Article 10 of Directive 78/176/EEC.

The Commission shall inform the other Member States.

Article 8

1. Member States shall take the necessary measures to ensure that discharges into the atmosphere are reduced in accordance with the following provisions:
 - a) in the case of existing industrial establishments using the sulphate process:

¹⁴ Such information shall be provided under Article 14 of Directive 78/176/EEC or separately should circumstances so require.

- i) as regards dust, discharges shall be reduced by 31 December 1993 to a value of not more than 50 mg/nm³¹⁵ from major sources and not more than 150 mg/nm³¹⁵ from any other source¹⁶;
 - ii) as regards SO_x, discharges arising from digestion and calcination steps in the manufacture of titanium dioxide shall be reduced by 1 January 1995 to a value of not more than 10 kg of SO₂ equivalent per tonne of titanium dioxide produced;
 - iii) Member States shall require means to be installed for preventing the emission of acid droplets;
 - iv) plants for the concentration of waste acid shall not discharge more than 500 mg/nm³ SO_x calculated as SO₂ equivalent¹⁷;
 - v) plants for the roasting of salts generated by the treatment of waste shall be equipped with the best available technology not entailing excessive costs in order to reduce SO_x emissions;
- b) in the case of existing industrial establishments using the chloride process:
- i) as regards dust, discharges shall be reduced by 31 January 1993 to a value of not more than 50 mg/nm³¹⁵ for major sources and not more than 150 mg/nm³¹⁵ from any other source¹⁶;
 - ii) as regards chlorine, discharges shall be reduced by 31 January 1993 to a daily average concentration of not more than 5 mg/nm³¹⁸ and not more than 40 mg/nm³ at any time.
2. This Directive shall not prejudice Directive 80/779/EEC.
3. The procedure for monitoring the reference measurements for discharges of SO_x into the atmosphere is set out in the Annex.

Article 9

Member States shall monitor the values and reductions specified in Articles 5, 7 and 8 in relation to the actual production of each establishment.

Article 10

Member States shall take the measures necessary to ensure that all waste from the titanium dioxide industry, and in particular waste subject to prohibition on discharge or dumping into water or on discharge into the atmosphere is:

¹⁵ Cubic metre at a temperature of 273 K and pressure of 101.3 kPa.

¹⁶ Member States shall inform the Commission of those minor sources not included in their measurement.

¹⁷ For new concentration processes the Commission can agree to a different value if the Member States can demonstrate the non-availability of techniques to achieve this standard.

¹⁸ It is considered that these values correspond to a maximum of 6 grams per tonne of titanium dioxide produced.

- avoided or re-used where technically and economically feasible,
- re-used or disposed of without endangering human health or harming the environment.

The same shall apply to waste arising from the re-use or treatment of the abovementioned waste.

Article 11

1. Member States shall take the measures necessary to comply with this Directive not later than 31 January 1993. They shall forthwith inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

2. Member States shall communicate to the Commission the provisions of national law which they adopt in the field governed by this Directive.

Article 12

This Directive is addressed to the Member States.

Done at Brussels,

For the Commission
The President

ANNEX

**Procedure for monitoring the reference measurements
for gaseous SO_x emissions**

For the purposes of calculating the quantities of SO₂ and SO₃ equivalent, discharged by specific installations, account must be taken of the volume of gas discharged over the duration of the specific operations in question and of the average SO₂/SO₃ content measured over the same period. The SO₂/SO₃ flow rate and content must be determined under the same temperature and humidity conditions.

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