# COMMISSION

## COMMISSION DECISION

**of 14 September 1994**

**concerning the prohibition of PCP notified by the Federal Republic of Germany**

**(Only the German text is authentic)**

(94/783/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community, in particular Article 100a (4) thereof,

Whereas :

### I. PROCEDURE

(1) **The measure notified**

On 2 August 1991 the Permanent Representative of the Federal Republic of Germany notified the Commission pursuant to Article 100a (4) of the EEC Treaty, of his Government's decision to continue to apply national provisions concerning pentachlorophenol (PCP) instead of Council Directive 91/173/EEC [1].

Those mandatory provisions are set out in the regulation of 12 December 1989 prohibiting pentachlorophenol *(Pentachlorphenolverbotsverordnung)* [2] and have applied since 23 December 1989.

This regulation prohibits the manufacture, marketing and use of pentachlorophenol, its salts and compounds, preparations containing more than 0,01 % of such substances and products which, following treatment with preparations, contain the said substances in a concentration of more than 5 mg/kg (parts per million — ppm). By way of derogation, the competent authorities may authorize such substances, preparations and products for use as synthesizing agents or secondary products, for scientific research or analysis or for disposal.

(2) **Directive 91/173/EEC**

Council Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations [3], as last amended by Directive 94/27/EC [4], provides for the prohibition or restriction of the use of certain dangerous substances and preparations.

Directive 91/173/EEC amending for the ninth time Directive 76/769/EEC prohibits the marketing and use of pentachlorophenol and its salts and esters in a concentration equal to or greater than 0,1 % by mass in substances and preparations. However, four exceptions are given. The use of pentachlorophenol and its compounds in industrial installations is permitted :

(a) for wood preservation ;

(b) for the impregnation of fibres and heavy-duty textiles ;

(c) as a synthesizing and/or processing agent in industrial processes ;

(d) for the *in situ* treatment of buildings of cultural and historic interest (subject to individual authorization by the Member State concerned).

In any event, PCP used as such or as a constituent of preparations used under the derogations referred to above must have a total hexachlorodibenzoparadioxin content of less than 4 ppm.

[1] OJ No L 85, 5. 4. 1991, p. 34.
[2] Bundesgesetzblatt — BGBl. I 1989, p. 2235.
[3] OJ No L 262, 27. 9. 1976, p. 201.
[4] OJ No L 188, 22. 7. 1994, p. 1.

These exceptions have to be reconsidered in the light of changes in knowledge and technology no later than three years after the implementation of the Directive. Member States had to bring into force the laws, regulations and administrative provisions required to comply with the Directive before 1 July 1992 at the latest.

The Directive was adopted by the Council by qualified majority on 21 March 1991 under Article 100a of the Treaty.

(3) **Opinions**

An acknowledgement of receipt of the notification of 2 August 1991 was sent to the Permanent Representative of the Federal Republic of Germany on 18 November 1991.

The notification was transmitted to the other Member States for their opinions. The Commission received opinions from Greece, Italy, France, Belgium and Denmark.

Greece takes the view that Directive 91/173/EEC provides an appropriate level of protection for man and the environment. It claims that the German measure would thus create an obstacle to intra-Community trade.

Italy expressed an unfavourable opinion on the use of Article 100a (4) in the case of Directive 91/173/EEC. In particular, the Italian authorities take the view that the limits set, namely 5 mg/kg, for traces of pentachlorophenol would adversely affect the importation of leather goods from Italy without providing any additional protection for man and the environment.

France also challenges the use of this Article in the particular case of pentachlorophenol. Its use is not sufficiently justified and would lead to serious losses in terms of both intra-Community trade and trade between the Community and some third countries.

Belgium does not challenge the use of the Article. It nevertheless believes that the limit laid down by the German authorities for traces of pentachlorophenol might create problems as regards some products.

Denmark supports the German measure.

(4) **The decision of 2 December 1992**

By decision of 2 December 1992, the Commission had endorsed the German regulation of 12 December 1989 prohibiting the manufacture, marketing and use of pentachlorophenol, its salts and compounds, preparations containing more than 0,01 % of the said substances and products which, following treatment with preparations, contain the said substances at a concentration exceeding 5 mg/kg (ppm).

(5) **Judgment of the Court of Justice and action to be taken thereon**

Following an application submitted by the French Republic, the Court of Justice, in its judgment of 17 May 1994 [1], annulled the decision in question because of the failure to provide the statement of reasons laid down by Article 190 of the EC Treaty, without ruling on the other points raised by the applicant.

By letter of 18 May 1994, the German Federal Republic confirmed its intention to continue to apply the German regulations, pointing out however that the 1989 rules had been consolidated in two regulations, one containing the provisions on the production and use of PCP (regulation of 26 October 1993, BGBl. I of 30 October 1993, Annex 4, p. 1782), the other containing the provisions on its marketing (regulation of 14 October 1993, BGBl. I of 20 October 1993, p. 1720). The Commission decided to seek the scientific assistance of an internationally recognized expert, Professor Rappe, of the Institute for Environmental Chemistry of the University of Umea in Sweden, who has presented his report to the Commission.

## II. FACTS

(6) **Pentachlorophenol**

Pentachlorophenol is a synthetic chemical substance recognized as being dangerous. It is dangerous for both man and the environment. Its classification and labelling, harmonized at Community level in accordance with Council Directive 67/548/EEC [2], as amended by Directive 92/32/EEC [3] for the seventh time, relating to the classification, packaging and labelling of dangerous substances, are as follows:

— classified as Category 3 carcinogenic, i.e. a substance which is of concern because of possible carcinogenic effects in man but which cannot be assessed satisfactorily on the basis of the information available. Information is available from appropriate animal experiments but it is not sufficient to classify this substance in the second category of carcinogens; it is labelled with risk phrase 'R 40: substance capable of producing irreversible effects',

— classified as very toxic by inhalation and labelled 'R 26: very toxic by inhalation',

[1] Case C-41/93, France v. Commission [1994] ECR, I-1829.
[2] OJ No 196, 16. 8. 1967, p. 1.
[3] OJ No L 154, 5. 6. 1992, p. 1.

— classified as toxic by skin contact and by ingestion and labelled 'R 24/25 : toxic by skin contact and by ingestion',

— classified as irritant to eyes, respiratory system and skin and labelled 'R 36/37/38 : irritant to eyes, respiratory system and skin',

— classified as dangerous to the environment and labelled 'R 50 : very toxic for aquatic organisms',

— classified as dangerous to the environment and labelled 'R 53 : may have long term adverse affects on the aquatic environment'.

Having regard to the three criteria of toxicity, persistence and bioaccumulation, PCP was included in List I of Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community [1], as last amended by Directive 91/692/EEC [2]. With a view to eliminating the pollution of the various parts of the aquatic environment which could be threatened by the discharge of PCP, limit values were laid down by Council Directive 86/280/EEC of 12 June 1986 on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464/EEC [3], as last amended by Directive 91/692/EEC.

Pentachlorophenol contains dangerous impurities, including up to 0,1 % of polychlorodibenzodioxins and 1 to 5 % of polychlorinated phenoxyphenols. PCP on its own and these last named impurities are responsible for the daily discharge of dioxins into the environment. Dioxins are discharged when products treated with PCP are exposed to sunlight and when at the end of their useful life they are incinerated. PCP in sewage sludge is also a source of dioxins.

PCP is used as :

— a wood preservative (fungicide and effective against blue stain),

— an agent for the impregnation in the textile industry (fungicide effect),

— a bactericide in tanning and the paper pulp industry,

— a soil sterilization agent,

— a molluscicide in the treatment of industrial water, particularly cooling water.

Because of its toxicity, PCP has been subject to various restrictions in more than 30 countries.

[1] OJ No L 129, 18. 5. 1976, p. 23.
[2] OJ No L 377, 31. 12. 1991, p. 48.
[3] OJ No L 181, 4. 7. 1986, p. 16.

## III. ASSESSMENT OF WHETHER THE NATIONAL PROVISIONS ARE JUSTIFIED HAVING REGARD TO THE OBJECTIVES PUT FORWARD

(7) Germany, like other Member States, is particularly concerned by the toxic effects of PCP on human health and the aquatic environment and the part it plays in the discharge of dioxins into the environment.

### A. *Protecting, health against the direct effects of PCP*

Pentachlorophenol poses a special health problem for Germany because of its past as a major producer and user of this substance. Germany was the biggest European producer of PCP until 1985 : thus, its leading firm produced 4 503 tonnes in 1978, which is three times the amount currently used in the Community.

Part of this production was used in Germany, mainly inside houses. However, the use of this substance inside houses presents a potential risk to human health. Because of the high production levels in the past and the way in which PCP was used, the German population is still exposed to abnormally high doses of PCP [4].

### B. *Protection of the aquatic environment*

PCP is a substance which kills certain aquatic organisms at concentrations in water as low as 0,1 µg/litre. This level was generally exceeded in German rivers before the ban on PCP. Most of those rivers now have concentrations of less than 0,1 µg/litre. If Directive 91/173/EEC were to be transposed by Germany as it stands, then those average concentrations would again, given the industrial structures and the activities linked to PCP, probably exceed the readings recorded before the ban on PCP ; the concentrations in watercourses near plants using PCP would rise to between 300 and 400 µg/litre. In such an eventuality, moreover, concentrations in underground water used for consumption (around 72 % of all drinking water) could once again rise above 0,1 µg/litre.

[4] The German problem relating to the use inside housing of wood products treated with PCP has been illustrated by legal proceedings taken since 1984 in Frankfurt. More than 3 000 persons have filed complaints against managers of enterprises for having sold products which have damaged their health.

In conclusion, the specific circumstances connected with the production and use of PCP in Germany in the past continue to pose a threat to the aquatic environment.

C. *Protecting health and the environment against dioxins*

(a) The characteristic of dioxins

Pentachlorophenol presents a problem because of its close links with dioxins. In the production of PCP, whether through the chlorination of phenol by catalysis or by the alkaline hydrolysis of hexachlorobenzene, a number of secondary products or impurities are also synthesized, including dioxins (0,1 %).

Dioxins also form during the high temperature combustion of organic materials containing chlorine : this is what happens when products containing PCP are incinerated.

However, dioxins are also emitted into the environment in a whole range of industrial and domestic processes.

Dioxins accumulate in the sediment of rivers and oceans where they are ingested by fish. They also accumulate in the soil where they are taken up directly of indirectly by plants and animals.

Man comes into contact with dioxin when he consumes food products.

Certain dioxins are very toxic and cause cancer.

(b) The incidence of dioxins in Germany

Germany has always considered that, as in animals, human cancer could be caused by *inter alia* contact with dioxins.

The problem of dioxins is viewed as particularly serious in that country, where the average rate of absorption by man reaches 1,3 pg/kg of body weight/day and where the absorption rate of certain groups of the population, such as babies, reaches 180 pg/kg/day.

A study carried out by the World Health Organisation in 1989 in 12 European countries on the levels of certain dioxins in breast milk showed that the highest concentrations of dioxins were found in Belgium, Germany, the Netherlands and the United Kingdom. The concentrations recorded in Germany began to fall after the ban on PCP.

The high concentration of dioxins in breast milk recorded in Germany has been confirmed by comparative studies carried out on dioxins present in sewage sludge (a study carried out in Germany, Switzerland and Sweden in 1989) and in garden compost.

The high level of dioxins in Germany appears to be due to a number of specific factors. Germany is one of the most highly industrialized and densely populated countries of the European Community. This means that there are a significant number of sources of dioxins apart from PCP such as municipal incinerators, waste incinerators, steel plants and metalworking installations, the high consumption of automative fuel, the massive use of sewage sludge, the number of waste recycling plants, etc.

Other local factors account for the dioxin problem in Germany. There are the climatic conditions which favour the transfer of dioxins (including those originating from the various areas bordering Germany) into the atmosphere and (through snow) into the soil and water. The dietary habits of the Germany population may contribute towards the high level of dioxins found there.

There is no international consensus on what the level of protection against dioxins should be. Some countries and some international organizations have extrapolated the results of tests on animals to determine their level of protection in man, using a number of safety factors. The following examples illustrate the difference in acceptable daily intakes fixed in a number of industrialized countries :

| | |
|---|---|
| — Germany | 1 pg/kg/day, |
| — United Kingdom | 1 pg/kg/day, |
| — Netherlands | 4 pg/kg/day, |
| — Scandinavian countries | 0 to 5 pg/kg/day, |
| — Canada | 10 pg/kg/day, |
| — Community | no figure. |

Whatever the acceptable daily intake, ranging between 0 and 10 pg/kg/day, it is clear that measures are necessary in Germany to protect certain groups exposed to figures of 180 pg/kg/day. The Commission considers it reasonable that the German authorities should wish to reduce the exposure levels of certain high-risk groups.

(c) German policy for combatting dioxins

The German authorities have reacted to this particular situation by adopting a whole legislative programme aimed at controlling sources of dioxin emissions.

Emissions of dioxins from municipal incinerators, motor fuels, sewage sludge and chemical products such as PCB and PCP have been regulated in Germany. A voluntary agreement has also been adopted to control the level of dioxins in industrial packaging used for drinks.

The most recent initiatives concern controls on all chemical products constituting a source of dioxins *('Gefahrstoffe')* and the development of a scheme for cleansing soil contaminated by dioxins. Consideration is currently being given to ways of reducing dioxin emissions from the metalworking industries, recycling plants and the paper pulp industries.

According to some estimates, such a programme of legislation could cut dioxin emissions to a tenth of their 1991 level by the year 2000. According to the same estimates, PCP from past uses will account for a third of all dioxin emissions by that date.

Finally, if PCP were to be reintroduced in Germany, the initial achievements of the measures taken in that country would be jeopardized by fresh emissions from factories using PCP for wood and textile treatment and in wood and textile products brought back into the German market.

Moreover, the increased level of dioxins due to the re-legalization of PCP, would entail significant economic costs. The new emissions would endanger the programme for reducing dioxins in municipal incinerators, which has cost more than DM 400 million. It would also threaten the use of 50 million tonnes of sewage sludge used in agriculture.

In conclusion, the Commission considers that the request by the German authorities to continue to apply the national provisions on PCP examined above instead of Directive 91/173/EEC is justified by the specific circumstances relating to health protection and the environment in Germany. The Commission considers moreover that on the basis of the foregoing, the provisions should be regarded as both necessary and proportionate to the objectives that they seek to achieve.

(8) **Examination of the non-discriminatory nature of national measures**

Annual world production of PCP varies between 25 000 and 30 000 tonnes. Germany no longer produces PCP and indeed it has not been produced anywhere in the Community since Rhône Poulenc stopped making it in 1992. In 1978 the main producer of PCP in Europe was a German firm, Dynamit Nobel, whose production reached 4 503 tonnes. However, after negotiations with the public authorities, the firms making up the German Association of Wood Preservative Manufacturers gave up PCP in 1985. The major producers of PCP are American and there are several importers into the Community.

A study by the German Environment Agency (*Umweltbundesamt*) published in 1992 on part of the West German chemical industry identified 250 producers of more than 1 000 preparations for trenting wood. More than 75 different chemical substances were apparently used in those preparations. An annual total of 47 000 tonnes of these preparations were used to treat wood, including 17 000 tonnes of creosote. Trade in wood preservatives between the former West Germany and other countries is considered to be minimal and around 1 000 tonnes of such products are imported each year into that part of Germany.

The Germany laws apply without distinction to all products containing PCP, whether domestic or imported. The Commission has never received any complaints against this legislation. Although during consultations Member States expressed doubts about the effects that the German measure might have on intra-Community trade, no figures have been put forward nor has there been any impact assessment on the economic sectors supposed to have been affected by the German legislation: leather, textiles, etc. The Commission has consulted various European industrial federations whose firms use large quantities of PCP: the information obtained does not indicate any barrier to trade. In the case of the timber industry it appears that the ban on PCP has not affected trade in wood in any way, since it is now treated with other products.

(9) **Do the national provisions in question represent a disguised restriction on trade between Member States?**

This concept, which is mentioned in the second subparagraph of Article 100A (4) refers to the objective of preventing restrictions based on the criteria laid down in the preceding subparagraph from being in fact used for economic purposes — that is to say, introduced either to restrict imports of products from other Member States or indirectly to protect domestic production. The Commission considers, however, that the facts and an examination of all the circumstances surrounding the introduction of these provisions as described above do not allow such a conclusion to be drawn.

There is no German special interest in the development, production of exportation of substitutes for PCP; on the contrary. The example of creosote, referred to above, proves the point. A regulation of 14 October 1993 prohibits the marketing of creosote, although Germany was the leading producer of creosote in the world. Trade between Germany and the other Member States in the PCP used in wood preservatives is very limited.

According to the undertakings, imports of PCP into the Community as a whole do not exceed 1 200 tonnes annually, a modest amount. PCP is a very cheap product, and its effect on the market is therefore negligible. Since there is no market for the product in Germany, nor indeed in any of the Scandinavian countries or Austria, the effects on intra-Community trade are practically non-existent.

IV

In view of the health and environmental hazards described in the expert report the Commission has arranged for a report on the operation of the Directive and on the substitutability of PCP to be prepared, on the basis of which it will assess by the end of the year the possibility of proposing a total PCP ban.

## CONCLUSION

In the light of the above considerations, the Commission considers that the national measures notified by the German authorities pursuant to Article 100 a (4):

— should be regarded as justified, having regard to the major requirements referred to in Article 36 of the EC Treaty and those relating to protection of the environment, and are necessary in relation to those requirements and, finally, are not disproportionate to the objectives pursued,

— do not constitute a means of arbitrary discrimination, and

— do not constitute a disguised restriction on trade between Member States.

The Commission is therefore justified in concluding that they may be endorsed,

HAS ADOPTED THIS DECISION:

*Article 1*

The provisions of the *Pentachlorphenolverbotsverordnung* (regulation prohibiting pentachlorophenol) of 12 December 1989, notified by Germany, as consolidated by the regulations of 26 October 1993 and 14 October 1993, are hereby endorsed.

*Article 2*

This Decision is addressed to the Federal Republic of Germany.

Done at Brussels, 14 September 1994.

*For the Commission*

Martin BANGEMANN

*Member of the Commission*