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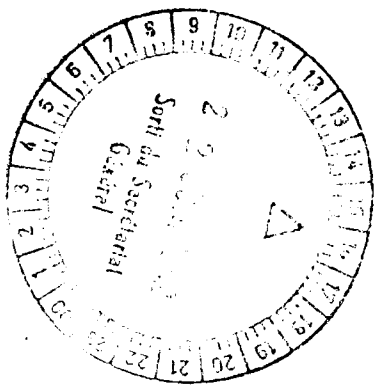

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

on dangerous substances which might be included in List I of Council Directive 76/464/EEC

Communication from the Commission to the Council on dangerous substances which might be included in List I of Council Directive 76/464/EEC

1. Introduction

On 4 May 1976 the Council adopted a Directive on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (76/464/EEC)[1]. The aim of this Directive is to eliminate pollution of water by the dangerous substances in the families and groups of substances in List I of the Annex of that Directive.

Under the Directive discharges into Community waters liable to contain any substance contained in List I shall be subject to prior authorisation by the competent authority in the Member State concerned. The authorisation must lay down emission standards for discharges which must not exceed the limit values to be laid down by the Council on a proposal from the Commission. Emission standards may also be laid down on the basis of quality objectives where a Member State can prove that these objectives, also to be laid down by the Council are being met and continuously maintained throughout the area which might be affected by the discharges.

[1] OJ N° L 129, 18 May 1976, page 23.

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Directive 76/464/EEC is thus a framework directive which must be implemented by means of subsidiary directives in respect of substances contained in List I.

These subsidiary directives mainly concern direct industrial discharges into the aquatic environment. However, in certain cases it will be necessary to devise a comprehensive approach in order to eliminate pollution caused by certain disubstances discharged into the different environments (water, air, soil) or by indirect or diffuse discharges.

2. Choice so far of priority List I substances

With the exception of mercury and cadmium, List I in the annex to the Directive of 4 May 1976 referred to above does not mention individual substances, but families or groups of substances (for example organohalogen compounds etc.).

It will therefore be necessary to choose certain individual substances from among the families or groups in order to study them and, if appropriate, prepare proposals for the Council. The Directive states that these substances must be selected mainly on the basis of their toxicity, persistence and bioaccumulation.

Following the adoption of the Directive of 4 May 1976 the services of the Commission began the choice of individual priority substances from List I. In this it was helped by a group of national experts, which has met five times.

During these meetings four series of substances have been chosen. These have been studied by the services of the Commission, and several are the subject of proposals to the Council which have been, or are being, prepared. List I also includes carcinogens, some of which are also being examined by the services of the Commission. The substances selected and the progress of the work on them are shown in Table 1.

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Table 1: substances selected so far and progress made

Substance	Progress made
First series:	
1. Mercury and mercury compounds	Proposal for a directive concerning the chloralkali electrolysis industry sent to the Council on 20 June 1979, adopted on 22.03.1982(OJ N° L 81 of 27.03.1982). Proposal for a directive on other industries in preparation.
2. Cadmium and cadmium compounds	Proposal for a directive sent to the Council on 17 February 1981 (OJ N° C 118 of 21.5.81).
3. Aldrin 4. Dieldrin 5. Endrin	Proposal for a directive sent to the Council on 16 May 1979 (OJ N° C 146 of 12.6.1979).
Second series:	
6. Chlordane 7. Heptachlor (including Heptachlorepoxide)	Communication by the Commission to the Council of 18 July 1980 (COM(80) 433 final) of which the Council took formal note on 3 December 1981.
8. DDT 9. Hexachlorocyclohexane (including all of the isomers and in particular Lindane)	The studies and discussions with the national experts are now completed. Appropriate proposals in preparation.
10. PCBs (including PCTs) 11. Hexachlorobenzene	Studies completed: discussions under way with the national experts.
Third series:	
12. Endosulfan 13. Hexachlorobutadiene 14. Pentachlorophenol 15. Trichlorophenol	Studies completed. Discussions under way with the national experts.
Fourth series:	
16. Benzene 17. Carbon tetrachloride 18. Chloroform	Studies in progress.
Carcinogens:	
19. Arsenic and mineral compounds of Arsenic 20. Benzidine 21. PAH (in particular 3,4 Benzopyrene and 3,4 Benzofluoranthene)	Studies in progress.

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3. Studies carried out and method pursued in drawing up a list of substances

In parallel with the work of choosing certain priority substances for List I, the Commission has effected a series of studies in order to establish a complete list of substances which might be in List I.

There are about 4 million chemical compounds of which about 50,000 are used for technical purposes. The aim of the initial study was to identify those among the substances used for technical purposes which, by virtue of their chemical structure, belong to the families and groups of List I.
1,500 substances have been identified.

It quickly became clear that the majority of these substances are not produced or converted on a regular basis within the Community, or that this only occurs in very small quantities (from a few kilogrammes to a few tonnes per year).

Closer analysis has shown that of these 1,500 substances 1,000 are produced or used in quantities of less than 100 t/yr, 186 more than 1,000 t/yr, 44 more than 10,000 t/yr and only 25 in excess of 100,000 t/yr.

Finally, in a third phase, 500 substances produced or used in quantities greater than 100 tonnes per year within the Community have been examined by means of a mathematical model to evaluate the risks to the aquatic environment from discharges of these substances.

This examination has enabled a classification of substances in order of priority in relation to the risk each constitutes for the aquatic environment and human health.

The method used is probably one of the best possible, but the mathematical model can only perform a rough simulation of the natural environment. It has also been necessary to make a number of estimates owing to the lack of exact data on the quantities, toxicity, persistence and bioaccumulation of certain substances.

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Several other lists of substances presenting risks to the aquatic environment were also taken into account in this work.

Thus one could cite the EPA (Environmental Protection Agency - USA) List of toxic pollutants[1] and List of hazardous substances[2], the Canadian list (List of priority chemicals 1979[3]) and the German catalogue of substances constituting a risk to the aqueous environment (Umweltbundesamt, 1980)[4].

Furthermore, the International Commission for the Protection of the Rhine against Pollution recently drew up a list of dangerous substances for that watercourse. The Services of the Commission participated in this work and was thus able to note specific information and data on certain substances of more particular interest to the ripairian countries of that river.

The Services of the Commission have drawn up a provisional list of 122 substances on the basis of the various lists of substances and on the studies referred to above. This List has been sent to the Member States with a view to obtaining additional information on, in particular, the quantities produced, consumed and discharged in the aquatic environment by each Member State.

This additional information was examined at a meeting of national experts, thus enabling a list of 108 substances out of 122 to be drawn up.

Since the 108 substances selected could not be examined simultaneously, it was agreed at this meeting to choose 15 substances to be studied first.

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1 Code of Fed. Reg. 1980 Title 40 Part 401 EPA

2 Code of Fed. Reg. 1980 Title 40 Part 116 EPA

3 Department of the Environment and Department of National Health and Welfare, Priority Chemicals 1979 (The Canada Gazette Part 1, December 1979)

4 Katalog wassergefährdender Stoffe, Umweltbundesamt, August 1980 (LTWS - Nr 12).

When one adds to this list of 108 substances the 21 substances which were chosen earlier and which have already been studied (see Table 1, page 3) one obtains the complete list of 129 substances to which this Communication relates.

4. List of substances

The List is annexed to this Communication.

Within this list it is necessary to distinguish four categories of substances in relation to the progress made in the work:

1. 7 substances, indicated by *** are already the subject of a proposal or a Communication to the Council;

2. 14 substances, indicated by **, are under study or have been studied;

3. 15 substances, indicated by *, will be studied in the near future;

4. 93 substances will be studied subsequently.

The Chemical Abstract Service number (CAS) has been added to the substances in order that they might be more easily identified.

The Commission does not consider this list to be final and exhaustive. It plans to review it, if appropriate, in the light of new scientific knowledge and to take account of any other substances which might be produced or used in future.

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5. Conclusions

The Commission asks the Council to take formal note of this Communication

It considers further that these substances should be included in List I of Council Directive 76/464/EEC. Where this has not already been done, these substances will be studied as a matter of priority and the Commission will submit to the Council, where necessary, appropriate proposals for the elimination of the pollution of the aquatic environment caused by these substances.

This Communication has also been sent to the European Parliament and to the Economic and Social Committee for information.

List of substances which could belong to

List I of Council Directive 76/464/EEC

*** Substances which are the subject of a proposal or a communication to the Council.

** Substances which have been or are being studied.

* Substances to be studied next.

309-00-2 CAS number (Chemical Abstract Service)

1.	***	309-00-2	Aldrin
2.		95-85-2	2-Amino-4-chlorophenol
3.		120-12-7	Anthracene
4.	**	7440-38-2	Arsenic and its mineral compounds
5.		2642-71-9	Azinphos-ethyl
6.		86-50-0	Azinphos-methyl
7.	**	71-43-2	Benzene
8.	**	92-87-5	Benzidine
9.		100-44-7	Benzyl chloride (Alpha-chlorotoluene)
10.		98-87-3	Benzylidene chloride (Alpha, alpha-dichlorotoluene)
11.		92-52-4	Biphenyl
12.	***	7440-43-9	Cadmium and its compounds
13.	**	56-23-5	Carbon tetrachloride
14.		302-17-0	Chloral hydrate
15.	***	57-74-9	Chlordane
16.		79-11-8	Chloroacetic acid

18.		108-42-9	3-Chloroaniline
19.		106-47-8	4-Chloroaniline
20.	*	108-90-7	Chlorobenzene
21.		97-00-7	1-Chloro-2,4-dinitrobenzene
22.		107-07-3	2-Chloroethanol
23.	**	67-66-3	Chloroform
24.		59-50-7	4-Chloro-3-methylphenol
25.		90-13-1	1-Chloronaphthalene
26.			Chloronaphthalenes (technical mixture)
27.		89-63-4	4-Chloro-2-nitroaniline
28.		89-21-4	1-Chloro-2-nitrobenzene
29.		88-73-3	1-Chloro-3-nitrobenzene
30.		121-73-3	1-Chloro-4-nitrobenzene
31.		89-59-8	4-Chloro-2-nitrotoluene
32.			Chloronitrotoluenes (other than 4-Chloro-2-nitrotoluene)
33.		95-57-8	2-Chlorophenol
34.		108-43-0	3-Chlorophenol
35.		106-48-9	4-Chlorophenol
36.		126-99-8	Chloroprene (2-Chlorobuta-1,3-diene)
37.		107-05-1	3-Chloropropene (Allyl chloride)
38.		95-49-8	2-Chlorotoluene
39.		108-41-8	3-Chlorotoluene
40.		106-43-4	4-Chlorotoluene
41.			2-Chloro-p-toluidine
42.			Chlorotoluidines (other than 2-Chloro-p-toluidine)

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43.		56-72-4	Coumaphos
44.		108-77-0	Cyanuric chloride (2,4,6-Trichloro-1,3,5-triazine)
45.		94-75-7	2,4-D (including 2,4-D-salts and 2,4-D-esters)
46.	**	50-29-3	DDT (including metabolites DDD and DDE)
47.		298-03-3	Demeton (including Demeton-o, Demeton-s, Demeton-s-methyl and Demeton-s-methyl-sulphone)
48.	*	106-93-4	1,2-Dibromoethane
49.			Dibutyltin dichloride
50.			Dibutyltin oxide
51.			Dibutyltin salts (other than Dibutyltin dichloride and Dibutyltin oxide)
52.			Dichloroanilines
53.		95-50-1	1,2-Dichlorobenzene
54.		541-73-1	1,3-Dichlorobenzene
55.		106-46-7	1,4-Dichlorobenzene
56.			Dichlorobenzidines
57.		108-60-1	Dichlorodiisopropyl ether
58.	*	75-34-3	1,1-Dichloroethane
59.	*	107-06-2	1,2-Dichloroethane
60.	*	75-35-4	1,1-Dichloroethylene (Vinylidene chloride)
61.	*	540-59-0	1,2-Dichloroethylene
62.	*	75-09-2	Dichloromethane
63.			Dichloronitrobenzenes

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64.		120-83-2	2,4-Dichlorophenol
65.	*	78-87-5	1,2-Dichloropropane
66.		96-23-1	1,3-Dichloropropan-2-ol
67.		542-75-6	1,3-Dichloropropene
68.		78-88-6	2,3-Dichloropropene
69.		120-36-5	Dichlorprop
70.		62-73-7	Dichlorvos
71.	***	60-57-1	Dieldrin
72.		109-89-7	Diethylamine
73.		60-51-5	Dimethoate
74.		124-40-3	Dimethylamine
75.		298-04-4	Disulfoton
76.	**	115-29-7	Endosulfan
77.	***	72-20-8	Endrin
78.		106-89-8	Epichlorohydrin
79.		100-41-4	Ethylbenzene
80.		122-14-5	Fenitrothion
81.		55-38-9	Fenthion
82.	***	76-44-8	Heptachlor (including Heptachlorepoxide)
83.	**	118-74-1	Hexachlorobenzene
84.	**	87-68-3	Hexachlorobutadiene
85	**	608-73-1 58-89-9	Hexachlorocyclohexane (including all isomers and Lindane)
86.		67-72-1	Hexachloroethane

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87.		98-83-9	Isopropylbenzene
88.		330-55-2	Linuron
89.	*	121-75-5	Malathion
90.		94-74-6	MCPA
91.		93-65-2	Mecoprop
92.	***	7439-97-6	Mercury and its compounds
93.		10265-92-6	Methamidophos
94.		7786-34-7	Mevinphos
95.		1746-81-2	Monolinuron
96.		91-20-3	Naphthalene
97.		1113-02-6	Omethoate
98.		301-12-2	Oxydemeton-methyl
99.	**		PAH (with special reference to: 3,4-Benzopyrene and 3,4-Benzofluoranthene)
100.		56-38-2 298-00-0	Parathion (including Parathion-methyl)
101.	**		PCB (including PCT)
102.	**	87-86-5	Pentachlorophenol
103.		14816-18-3	Phoxim
104.		709-98-8	Propanil
105.		1698-60-8	Pyrazon

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106.		122-34-9	Simazine
107.		93-76-5	2,4,5-T (including 2,4,5-T salts and 2,4,5-T esters)
108.			Tetrabutyltin
109.		95-94-3	1,2,4,5-Tetrachlorobenzene
110.	*	79-34-5	1,1,2,2-Tetrachloroethane
111	*	127-18-4	Tetrachloroethylene
112.		108-88-3	Toluene
113.		24017-47-8	Triazophos
114.		126-73-8	Tributyl phosphate
115.			Tributyltin oxide
116.		52-68-6	Trichlorfon
117.	*		Trichlorobenzene (technical mixture)
118.		120-82-1	1,2,4-Trichlorobenzene
119.	*	71-55-6	1,1,1-Trichloroethane
120.	*	79-00-5	1,1,2-Trichloroethane
121.	*	79-01-6	Trichloroethylene
122.	**	95-95-4 88-06-2	Trichlorophenols
123.		76-13-1	1,1,2-Trichlorotrifluoroethane
124.		1582-09-8	Trifluralin
125.		900-95-8	Triphenyltin acetate (Fentin acetate)
126.			Triphenyltin chloride (Fentin chloride)

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127.	76-87-9	Triphenyltin hydroxide (Fentin hydoxide)
128.	75-01-4	Vinyl chloride (Chloroethylene)
129.		Xylenes (technical mixture of isomers)