

REGULATION AND RESEARCH ACTIVITY IN GERMANY

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I do not think you have all had the chance to listen to the opening speech given by the State Secretary at my ministry. So I should like to summarize the legislative issues concerning dioxins and furans that have been passed or are still under discussion. The German Federal Government has developed an overall concept for protection against hazardous substances. This concept is supported by a closely-unit network of precautionary measures.

Anticipatory action has been comprehensively extended with the amended Chemicals Act, with the programme for abandoned contaminated waste and former industrial sites and a whole range of prohibition, limitation and maximum permitted quantity ordinances. Moreover, measures on the safety of installation, the extension of the Federal Immission Control Act and the environmentally compatible disposal of waste are part of the overall concept to overcome the chemical risk.

Now - to the field of special measures against dioxin pollution:

As far as is known to date main sources are

1. the production and use of the industrial chemicals PCP (pentachlorophenol) and PCB (polychlorinated biphenyls) and other processes in the chemical industries,
2. incineration processes of all kinds, in particular improper waste incineration and copper smelting,
3. the use of some special scavengers in leaded petrol.

In all these areas the Federal Government has taken decisive legal measures to reduce considerably new inputs of dioxins into the environment.

In the past, use of PCBs containing dioxin - which are pollutants - made up the largest input into the environment. With the 10th Ordinance amending the Federal Immission Control Act the use of PCBs in open systems was banned in the late seventies. With the Ordinance on the prohibition of Polychlorinated Biphenyls of July 1989 the ban is extended to closed systems.

Another chemical responsible for environmental pollution from dioxin is the pesticide PCP (pentachlorophenol). The production of PCP was stopped in Germany in the early eighties on voluntary basis. The Ordinance on the prohibition of Pentachlorophenol of December 1989 bans the production, bringing into circulation and use of PCP. That means that now for example the import of PCP-impregnated wood is no longer permitted. Since PCP contains considerable amounts of dioxins this ordinance will also bring a significant reduction in the input of dioxin into the environment.

The Federal Government recently passes the Ordinance on Incineration Plants for Wastes and Similar Combustible Substances, which includes, with 0.1 ng TE/m³ of flue gas, a stringent limit value for dioxins. Before, it had already been possible - thanks to the provisions the 1986 Technical Instruction on Air pollution - to keep to a figure of around 1 ng. But with the new ordinance dioxin emission are limited to the absolute technical minimum achievable at the moment.

My ministry recently presented a draft Ordinance on the prohibition of Scavengers in Leaded Petrol. This prohibition blocks off another source of dioxin emissions - independent of the fact that the use of leaded petrol is going down.

In the already well underway draft amendment to the existing Sewage Sludge Ordinance maximum permitted values are set for the first time for dioxin and PCBs in sewage sludge, used for some special agricultural purposes.

The Federal Ministry for the Environment is making efforts to strengthen the existing maximum limit for polychlorinated dioxins and furans, which have been part of the Ordinance on Hazardous Substances since October 1986. Further efforts are being taken to insert maximum limits for polybrominated dioxins and furans into this ordinance.

I should mention that it is planned to put restrictions on flame retardant brominated compounds.

In fact, we have founded a Federation-Länder working group, which has the task of collecting all data available in Germany, to evaluate all results of any investigating and to make a risk assessment. The results of this working group will point out if or in which fields further legislative issues are necessary or research has to be carried out.

Finally there are two ordinance to speak about concerning PCB:

1. The first is the Ordinance on Waste Oil.
With this ordinance it is regulated what measures have to be taken in collection of used oils containing PCB, for example separate collection and treatment.
2. The second is the Ordinance on Maximum Permissible Quantities of Contaminants in Foodstuffs:
Within this ordinance legal maximum limits are fixed for 6 specified PCB-congeners in *foodstuffs of animal origin*.

Current research projects are mainly carried out on the following topics:

- effects on humans
- toxicity and metabolism
- input routes into the environment
- reduction and prevention strategies with regard to special sources
- development and testing of analytical methods.

It is not for me to present detailed results of special research projects. This has already been done during other sessions of this congress by the experts.

From the point of view of the Federal Ministry for the Environment one of the most important aims in the present discussion about chemicals is to block off further input of dioxin and furans into the environment.